

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. XIX

MARCH—APRIL, 1917

No. 2

The Great Blue Herons of Honeoye

By VERDI BURTCH

With photographs by the author

DOWN through a deep narrow valley in the finger-lake region of western New York, winds the inlet of Honeoye Lake. About two and one half miles from the lake the valley begins to broaden out and the inlet overflows in springtime on the alluvium and clay beds that it has been bringing in and depositing during the centuries to form an oozy, treacherous swamp. This swamp is covered with a forest of ash, elm, and maple trees, and is full of fallen logs in various stages of decay.

Here the valley is 800 feet above the sea-level and the wooded hills are very steep and rise 1300 feet to 1400 feet above the valley on either side.

In January, 1914, our game-protector told me of the large nests that he had seen in this swamp, and from his description I at once knew that they were the nests of the Great Blue Heron.

May 24, 1914, a charming automobile ride of twenty-four miles over and through the glaciated hills brought us to the upper end of the swamp. Long before we were there we could see the nests of the Herons high up in the dead tops of the ash trees which were above the other trees in the forest. It did not take us long to get into the midst of them, where the great birds were flying to and fro or were perched on or above the nests. They were not nearly so wild as the Lake Lamoka Herons which we visited the year before, for these left the vicinity of the nests as soon as we came among them and after a long time came scouting around only to leave again as soon as they glimpsed us.

These Honeoye birds acted more like our old Potter Swamp birds of twenty years ago, and who knows but that they may be direct descendants of the Potter Swamp birds, their ancestors having moved to Honeoye after Potter Swamp was despoiled of its forest.

We counted seventy-six nests that we could see from the road, and there must have been a few that we could not see. Many of these nests held young and nearly every nest had an old Heron or two either on or above it.

Some of the trees held as many as four nests, and it was near one of these and another tree with three nests that I climbed a tree and pulled my camera up after me. I had hardly got settled into a fairly comfortable position when the Herons began to return to their nests. A bird came to each nest, and



" . . . PERCHED ON OR ABOVE THEIR NESTS "

five birds came to the four-nest tree. From my vantage-point I could see far out over the forest. A few birds were sitting on their eggs, their long necks folded over their backs, but most of them were standing in their nests or on a branch at one side or above them. They would stand thus motionless for a long time, or sometimes after alighting would stand still for ten or fifteen minutes, then walk slowly down the limb to the nest, using the wings to help

them balance. When an old bird alighted at a nest where there were young, the young would stretch up their heads and make a great variety of grunts and squawks, but as the old one appeared to take no notice of them they would soon subside.

I saw sixteen birds at nests at one time and many others flying about. At one nest a pair stood on each side facing each other with the young sticking their heads up between them—unfortunately it was out of range of my camera.



"THEIR GREAT WINGS FLAPPING SLOWLY"

At another nest a male bird brought a stick to his sitting mate and she took it from him and placed it on the nest.

We went to this herony again June 5, 1915, arriving there at 8 A.M. Before going into the swamp I counted 101 nests that I could see from the road. We found the ferns and other tender plants all wilted down, having been cut by frost a few nights before. The fallen logs were a great help in getting around as the water was quite deep and there were many treacherous places where the mud and water would let one in over his boot-tops.

As on our other visit, the Herons were busy flying to and from the lake or circling around the nests. A dead Heron was hanging by its head high up in a

tree; probably had been shot and lodged there. Some of the trees with nests were rather close together, and many held two, three, and a few as many as four nests.

Selecting a tree near two trees, each of which contained two nests, I was soon up where I could command a view of nearly the entire herony, and it was certainly a fine sight, nests nearby and far away in each direction. I could see



"THE GREAT BIRDS WERE FLYING TOO AND FRO"

sixty-three nests from my position, and thirty-seven had birds on them or standing on a limb above them. Many birds were perched on the tip-top of the nest-trees, standing motionless like statues outlined against the wooded hill. Birds were coming up the valley from the lake, their great wings flapping slowly, then, as they neared the nest-tree, the legs were brought forward and with a few quick flaps they alighted on the end of a limb, flapping their wings a few times to regain their balance. If there were young in the nest, as there



"WITH MY LAST PLATE I GOT MY BEST PICTURE"

were in nearly all at this time, they would raise their heads and set up a great squawking, crowding and fighting each other and making noises like the barking of a puppy and a whole litter of little hungry pigs. The old birds never seemed to notice them, however, and they soon subsided and settled back in the nest.

The old bird would stand motionless for a long, long time, then, with great deliberation, walk down the branch to the nest. When the parent reached the nest the young would take her bill in theirs and try to pull her down. She usually stood a long time with her head up before feeding the young, then would drop her head when a young one would take her bill into its own as she gave up the food. At other times she would regurgitate the food into the nest and the young would pick it up.

The two nests nearest to me remained empty, their owners coming around many times but each time wheeling and going away again until I began to fear that they would not alight while I was there. Below me the Water Thrushes and Redstarts were singing, and a Great-crested Flycatcher cried out from his perch on the dead top of a tree. Occasionally I would glimpse a Scarlet Tanager as he flashed by through the trees beneath me; Downy and Hairy Woodpeckers and Flickers were working on nearby stubs. Two Mallard Ducks flew over, and a Red-eyed Vireo sang his querulous song. All this was very interesting, but standing with one's full weight on one's climber-spurs and holding twelve pounds of camera is not very comfortable, to say the least, and after I had endured it for over two hours and was thinking of going down, a bird came flapping along to the lower nest and—*click*—she was mine as she sailed up to her perch on a limb beside the nest. Almost at once the other bird came and alighted on a limb above the upper nest. After the usual wait she walked slowly down the limb to the nest, and with my last plate I got my best picture, two nests and a bird standing at each.



Two Baby Hummers

By MARGARET S. HITCHCOCK

With photographs by the author

IT was on the 13th of June, 1914, that I discovered it. Could it be, I wondered—so tiny a bit of something on the bough, fastened together with cobwebs—could it be that a Hummingbird had condescended to build her nest in our garden? I did not dare look longer then, for fear, if it was really true, that I might disturb the wee, emotional thing. I watched and waited; yes, what joy! When I saw her really busy, coming and going, so fast that on the second day the nest was very nearly finished. On the 19th, I boldly looked inside, and saw one egg, and on the 21st I saw two eggs, when she seemed to be on the nest really sitting. Frequently she left to visit the honeysuckle nearby, but returning in a moment or two. From the first she did not seem to look upon me as an intruder. She was always near, however, generally watching from a favorite perch in an adjoining tree, but never making any protest, and I have seen her many times drive Sparrows well out of the neighborhood of her nest. So I photographed her, when she came three times and looked sharply at the camera pointing at her, then rested on a twig just over the nest, preening her feathers. After about three minutes she came with a dart, hovered over the nest a second, eying me sharply, about four feet from her, and then settled on her eggs as if she did not mind in the least, as long as I was still. But, when I moved away, she flew off, only to return in an instant.

She seemed to become more and more accustomed to my coming and going, but she never stayed on the nest when I came very close.

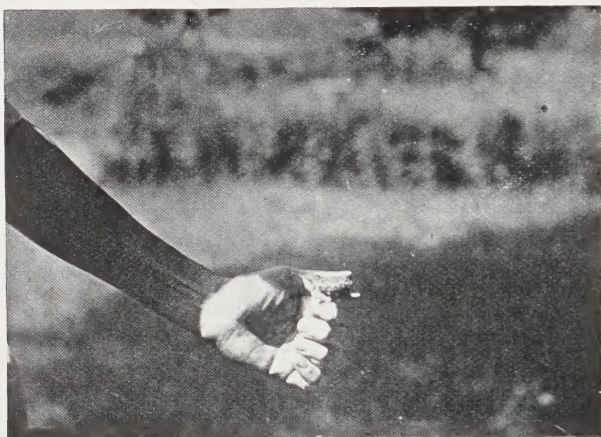
On the 4th of July, when I peeped in as usual, lo! I saw that one tiny white egg had hatched, and, but for the pulsation, I would have said that the tiny bunch, bare and almost black, and apparently headless, was not alive. It was not until several days later that I saw the wee head and bill, which had been tucked under. I supposed because, perhaps, of the weight of the long bill; but no, nature does not provide the long bill until needed. The bill was no longer in proportion, when first hatched, than other birds' bills.

I suppose the first one was the brother, as he was so much larger than the other; however, this was the only difference between them. On the morning of the 5th the smaller one hatched. The egg-shells disappeared as if by magic. I suppose the little mother carried them quite away. No father made his appearance, not even visiting the honeysuckle nearby. I have not even seen a male Ruby-throat this summer.

On July 12 I took a picture, and again when the baby hummers were two weeks old, but neither shows the little ones very distinctly; they nestle down until only the bill and eyes are visible. On the 22nd, however, they held their heads higher, and the picture shows two tiny heads.

On the 23rd, I resolved, while there was no danger of their flying, to get a

better picture. I had fed them for several days, a drop of syrup (sugar and water), which they took as freely as they did food from their mother, opening their bills each time. I gently put my finger under the stronger one, when he im-



IN THE HAND JULY 23, 1914

mediately snuggled in the warm hand, and I carried the tiny baby in front of the camera and snapped his picture. When I placed him back, he was just beginning to tremble—such a baby, I thought! Then imagine my surprise on the morning of the 26th to find this bold little fellow sitting on a bare twig half-

way to the top of the larger spruce, more than twenty feet away from the nest, and his little sister all alone below. I immediately photographed her, forcing her to sit on the edge of the nest, which she did not want to do. She seemed rather afraid, but in a moment I put her back in the nest, and all was well until the next morning, when, I suppose, she tried to follow the brother. At an early hour she was in the nest, but at about nine o'clock she was gone.

The mother was very faithful; in fact, I discovered where the mites were by seeing her feeding them, when my mind was set at rest about their safety.

I was amazed at their quick intelligence, and at no time more so than when, on coming only the second time with syrup, I found their heads far above the nest, their necks stretched an inch or more. I could not believe it possible that it was for me until I saw



IN THE NEST JULY 25, 1914

it repeated each day when I brought them the food. I gave it to them only once a day, fearing to interfere too much, so that they remembered from the day before. This I thought most remarkable, considering that they were so young.

Their bills have grown longer, and I noticed, too, they did not protrude the tongue until the day before the first one flew; then they regularly licked the syrup from my finger with the tiny, hair-like tongue.

Today, the 27th, they are so high in the tree I cannot see them, only hear them often. This is reassuring, though I cannot be called even a foster-mother; nevertheless, I would not take anything for the confidence already shown, and I think of Longfellow's poem:

"He giveth you your wings to fly,
And breathe a purer air on high,
And careth for you everywhere,
Who for yourselves so little care!"

Redwing

By ELSIE ELOUISE WHEELER, Meriden, N. H.

NOT the shy little Indian maiden that kept the prairie camp-fires bright for an absent lover, but a brilliant little Warbler, is the Redwing of my story.

One beautiful summer morning, I received a telephone message from a friend that a bird of bright tints was fluttering at that moment, quite unable to fly, in a rose-bush beneath her window. Would I come down and ascertain the nature of its injury and see that it was cared for? "At any minute," she prompted, "the Grimalkin of the Green Eyes may prowl around the hotel corner." Needless to say, I went, though the sun-splashed distance stretched half a mile, and my waiting housework voiced remonstrance.

The bird proved to be a full-grown male Redstart, and I easily caught him and carried him home. One wing drooped uselessly, but no bones seemed to be broken, and I concluded that the bird had flown so violently against some obstruction as to bruise and lame the breast muscles, rendering flight impossible for the time. From the vivid orange flame of his wing markings, I named him 'Redwing.' I placed him in an empty bird-cage and offered him refreshments. I had watched Redstarts in the woods, so I knew what kind of food my guest would relish. I brought my fly-killer and sought the sunny side of the shed.

Thirty house-flies were my first offering, and these were greedily swallowed. For all his stiffened muscles, Redwing was the swiftest bird in motion I ever saw. He would sit on his cage-perch and swing his head downward to pick up the flies, or drop to the bottom of the cage, snatch a fly in his bill and swallow it

while hopping to his perch again, meanwhile turning and twisting his alert body with inconceivable agility, flirting and opening and shutting his tail. Even in his semi-crippled condition, he was the spirit of animation.

Disliking to be thought inhospitable in my own home, I set before the invalid other thirty flies, and was rather aghast to see them all disappear down the 'red lane with no turning' in exactly ten minutes by the clock.

Was it reproach for niggardliness that looked out at me from Redwing's black, expressive eye? I bethought me of a neighbor's wire fly-trap.

The borrowed trap was baited and set and I went about my housework with lightened responsibility. Pending the filling of the trap, I put into Redwing's cage sections of earthworms, some scraped veal, and bits of suet, but none of these would he even deign to sample. Later in the day the trap was opened, and 400 flies, by actual count, were set as 'a feast before the king.' These lasted Redwing about two hours.

During the first day, though constantly active, Redwing seemed weak and showed little fear of me, eating and drinking when I was close beside him. Dainty and graceful as a butterfly, much more brilliant in hue, and scarcely larger than my thumb, he was the most attractive and interesting visitor that ever gladdened our home.

Being an adult, his habits were formed, and he was untamable. His longing for the wildwood life began to awaken as his wing healed, and the restraint of the cage, necessary to insure his safety, grew constantly more irksome. When I drew near with food, or when hungry, his chirping call rang loud and metallic, otherwise he was silent.

On the second day the patient seemed stronger and became so restless that I transferred him to a larger cage, and on the third day I hung this in an unused chamber where he would be free from molestation. Shortly afterward he began to resent my approach, showing signs of fear when I ministered to his needs; so I placed a dish containing about eight hundred flies in his cage, filled his drinking-cup, and left him as much as possible to the solitude he seemed to desire.

The chamber door has a small aperture through which I could watch him without being seen, his actions becoming more natural when he considered himself free from observation. High up in one end of his cage was a perch, and at the other end was one near the bottom, in close proximity to his food. One day I watched him unobserved, for fifteen minutes, and he hopped and flirted from the high to the low perch and back 236 times, usually taking a fly or a sip of water every fourth trip.

After leaving him for an hour, I came back to my concealed post of observation and took 'tabs' on his doings for fifteen minutes more. This time he made the round trip, by actual count, 311 times, taking a fly or a drop of water, as before, about every fourth trip. At this rate, Redwing would consume

about two thousand flies a day, and while he was in my care he kept to about that average.

With such an established record for insect-eating, of what incalculable value are Redwing's innumerable kinsfolk to the orchardist, to the agriculturist and to the lumberman, in their consumption of untold numbers of destructive caterpillars and other insects!

Late one afternoon, when my dainty feathered guest flew about so actively that I believed he would now be able to care for himself, Redwing and I took the path to the woodland together. In the gnarled hillside orchard, a favorite Warbler haunt, I photographed Redwing in his cage and then set him free. With a few exultant notes he flew by short stages through the orchard, up the hillside, and met the descending night in the dim mosaics of the woodland.

The Purple Martin at Wichita, Kansas

By RICHARD H. SULLIVAN, Wichita, Kansas

THIS beautiful summer resident, *Progne subis*, is probably the most sociable of the community birds that visit the temperate regions of eastern North America during the nesting season. I say 'beautiful' because of its symmetry and elegant poise in flight, and particularly because of its inviting insistence that the bleak, somber, wintry days should go, and that the greening, with its varied chorus from other feathered throats, is come. Indeed, his friendliness is in direct contrast to the remarkable indifference of civilization, whose habitations he frequents while performing a positive service, for which he receives little or no return, except in death by the shotgun, as voluminous evidence will show.

I have been building houses and shelters for Martins, Wrens, Bluebirds, Chickadees, and other birds, for forty years, or ever since I was big enough to build anything, and the first of these birds has always appealed to me as approaching the ideal, with the sprightly little Wren as a close second; for both species consume many times their weight in the noxious insect enemies of mankind. At the same time, their general attitude is so cheerful and friendly that one might be excused in wanting them around all the time.

When I came to Wichita from Colorado, in June, 1905, a careful watch was kept to observe Martins as the train moved eastward. The first note was heard at Dodge City, 150 miles to the westward of this city. Upon arrival, sixteen large and small colonies were found in the down-town district, and several in the residence sections, with a total of about seventy-five pairs, as a rough estimate. I have kept a record of their arrival and departure in season since that time, and find that there was apparently an increase up to the summer of 1911, when they seemed to be somewhat less numerous.

Dates of arrival and departure:

Year	Spring	Summer and Autumn
1905		August 15
1906	April 14*	August 25
1907	March 11	August 31
1908	March 27	August 19
1909	March 25	August 12
1910	March 22	August 22
1911	March 30	August 28†

For various reasons, a Martin-house was not erected until the early spring of 1908. It was a common box with six compartments, placed upon the roof of a five-story office building. That summer, five pairs of Martins brought their young to wing from this home.

With preparations for removal of offices to a higher building in the late winter of 1908, another and much more elaborate house was planned. It is a sort of bungalow or resort-hotel pattern, and contains forty-six rooms, most of which are 4 by 4 by 6 inches in size, with 2.5 by 3-inch openings. The old box was removed and set underneath this new hotel, which was placed upon a framework about four feet above the roof, 107 feet above the ground. It was painted white and green, and the total expense for house, platform and erection was nominal.

During the summer of 1908, four pairs nested in the old box underneath and six pairs in the new hotel. All of these brought their young to wing, and thirty-six birds left the new house for the South in August. This was considered a very good beginning.

It was with a good deal of satisfaction that I found that eighteen pairs of birds has nests in my little hotel in May, 1909. Then followed trouble for the birds and disturbance of my peace of mind. For some reason, unknown at the time, the birds began visibly to decrease before full complements of eggs had been laid. Careful examination disclosed no vermin. It was later found that the desertions were due to nightly visits of marauders who gained access to the roof by the fire-escape, and also to molestation by visitors from adjoining roofs. As a consequence, but six pairs brought young to wing. During the following autumn, a total of twenty-seven eggs were taken from the several rooms, some nests having one egg, some three, and some six.

In the spring of 1910, the same trouble was experienced, fourteen pairs nesting and but three bringing young to wing. I then determined to remove the house to my home in Fairmount, a college suburb, three and five-tenths miles from the original site, in the hope that a few stragglers in the neighborhood might be induced to colonize there. The house was placed on a heavy pole, 18 feet above the ground, and gourd vines were started to present a home-like, inviting appearance. The House Sparrows appropriated the accommodations within two days after the work was finished, in March, 1911.

*Sick in bed for a month after March 7.

†Austin H. Larrabee, Professor of Biology in Fairmount College, has a date for a female Martin of October 4, 1911.

Then began a relentless warfare against this persistent and pugnacious creature. So fiercely were they persecuted, to make way for better birds, that if a Sparrow saw a member of my family stoop to the ground, he would 'dig out.'

But the nesting season passed without Martins.

During May I discovered that a pair of Sparrows had built a nest in one of the rooms, the female having peculiar markings. Five eggs were destroyed from this nest, and in a few days another nest was begun on the other side. The process of destruction alternated from time to time until the close of August, when it was found that fifty fresh eggs had been destroyed. And I verily believe that they were all laid by the same female.

The warfare will be reopened next month, when the obstructions are taken from the openings. One scheme employed last year was to put tappers in two small milk-cans and adjust the cans as cow-bells out of sight under the house, with strong string or wire running thence to the pantry window. A jerk of this string always emptied the house of Sparrows.

During last autumn large numbers of migrating Bluebirds stopped and investigated the accommodations of this hotel, supposedly with a view to future engagements; but I shall take care of them with another bird-house.

Another Martin-house of moderate size will be put up this spring on the present office building, which has an inaccessible roof 134 feet above the ground; and I am almost certain of a colony there, even though the trial at Fairmount may still be unsuccessful.



EVENING GROSBEAKS AT PITTSFIELD, MASS.
Photographed by Mrs. W. F. Barrows

Notes on the Plumage of North American Birds

FORTY-THIRD PAPER

By FRANK M. CHAPMAN

(See frontispiece)

As Mr. W. DeW. Miller has remarked in discussing the plumage changes of the Wrens figured in BIRD-LORE for December, 1916, the sexes in this family are alike in color or essentially so. After the postjuvenal molt, the young bird is distinguishable from the adult only by slight differences in the wings and tail which are not renewed at that molt, and subsequent changes in the color of the plumage are due only to wear and fading. But if the Wrens vary but little with age, sex, or season, many of the species vary geographically, and those which have a wide range are usually represented in it by a large number of local races or subspecies which, in their color and size, exhibit the effect of the existing environment.

Bewick's Wren (*Thryomanes bewicki*, Fig. 1).—The nesting (juvenal) plumage has the breast mottled or indefinitely spotted with blackish, but these markings are lost at the postjuvenal molt, after which the young bird resembles the adult.

Bewick's Wren is found throughout the greater part of the United States (though it is only locally common east of the Alleghanies), and is consequently subjected to a wide variety of conditions to which it responds by more or less evident racial variations in color and size.

Mr. H. C. Oberholser in a review of this group published in 1899 (Proc. U. S. N. M., XXI, pp. 421-450) includes eleven forms of Bewick's Wren from the United States, Lower California, and the islands of the Pacific coast, but of these the 'Check-List' of the American Ornithologists' Union (1910 Ed.) recognizes only eight. In the latest paper on these Wrens, however, Mr. H. S. Swarth describes no less than eight races from California alone (Proc. Calif. Acad. Sciences, VI, 1916, pp. 53-85).

Fortunately, these Wrens are as a rule non-migratory, and one therefore rarely finds two races in the same locality. Field identification, therefore, so far as subspecies is concerned, is more a matter of geography than of ornithology. So far as *species* is concerned, Bewick's Wren may be readily distinguished from the House Wren by its white or buffy superciliary line, by its longer tail, larger size and other characters. Our figure, based on the eastern race, is somewhat too rufous and the superciliary line is more buffy than is usual. The western races are grayer, less reddish brown above.

House Wren (*Troglodytes aëdon*, Fig. 2).—The juvenal plumage differs from that of the adult in the blackish mottling of the breast, but, as with Bewick's Wren, these markings disappear with the postjuvenal molt. It also agrees with that species in having no spring molt, and the breeding plumage is essentially like that worn in winter.

The House Wren ranges from Cape Horn to Canada. Several specific and many subspecific names are applied to it in this wide area, but one has only to see the birds and hear them sing, whether in South America or North America, to be convinced of their close relationship.

In the United States we have only two races, *Troglodytes ædon ædon* of the East and *Troglodytes ædon parkmani* of the West.

Winter Wren (*Nannus hiemalis*, Fig. 3).—The nestling Winter Wren has the breast mottled or margined with dusky, and the presence of these markings in connection with the barrings on the flanks make the juvenal plumage quite unlike that of the adult. Only the flank markings are retained at the post-juvenal molt, after which young and old are alike in color. There is no spring molt, and the summer plumage is essentially like that of winter.

Three races and two closely allied 'species' of the Winter Wren are known in North America. *Nannus hiemalis hiemalis*, the Eastern Winter Wren, ranges westward to Alberta; *N. h. pacificus*, the Western Winter Wren, is found from western Alberta to the Pacific coast; and *N. h. helleri*, the Kadiak Winter Wren inhabits Kadiak Island.

Alaska Wren (*Nannus alascensis*, Fig. 4).—The Alaska Winter Wren is a representative form of the Winter Wren found in the western part of the Alaska Peninsula, the eastern Aleutian Islands, and St. George Island of the Pribilof group. It differs from the Winter Wren chiefly in having a slightly longer bill; below, it more nearly resembles the Western Winter Wren in color, while the upperparts are more like those of the Eastern Winter Wren.

The Aleutian Wren (*Nannus meliger*) represents the Aleutian Wren in the Western Aleutian Islands.

Long-billed Marsh Wren (*Telmatodytes palustris*, Fig. 5).—The nestling Long-billed Marsh Wren has the crown and foreback black without white streaks and is thus quite unlike the adult in appearance; but after the post-juvenal plumage, old and young wear the same kind of plumage. In Dwight's opinion, there is a complete prenuptial or spring molt in this species.

Five races of this species are known, as follows: (1) *Telmatodytes palustris palustris* of the northeastern states; (2) *T. p. marianæ* and *T. p. griseus* with a not fully understood range in the southeastern states; (3) *T. p. iliacus* of the "plains and prairies of central North America;" (4) *T. p. plesius* of the "arid interior of North America;" and (5) *T. p. paludicola* of the Pacific coast.

Short-billed Marsh Wren (*Cistothorus stellaris*, Fig. 6).—I have seen no specimens of this species in nestling plumage. In the nestlings of *Cistothorus apolinari*, a species from the Andes of Colombia, the streaks of the upperparts are nearly obsolete. According to Dwight, the young of our species after the postjuvenal molt cannot be distinguished from the adult, and there is a complete spring molt. There is only one species of Short-billed Marsh Wren in North America, but closely allied species are found as far south as Argentina.

Notes from Field and Study

An Unexpected Visitor

When I came downstairs at about six o'clock in the morning on September 16, I was astonished to see a Screech Owl sitting on a radiator in the front hall. My first thought was that someone had put a stuffed bird there as a joke, but I realized at once that he was alive, because he turned his head when I moved to one side. I called to my wife, and she came down to see our visitor, who did not seem to be at all disturbed at our presence. I then got

and flew into an adjoining room. He struck against a mirror and dropped onto a table, where he sat on a pile of books, looking very wise indeed. He did not remain long, however, but flew to my camera, which was standing near-by. After my friend had taken his picture in this position we decided not to keep him in the house any longer, so we opened the door, and he flew silently out, being lost to view in some near-by woods.

We think the Owl must have come down a chimney into a fireplace, as there was



SCREECH OWL

Photographed by H. L. Shaw, Jr.

out my camera and took some pictures, one of which is reproduced herewith. Nearly an hour later I went to the house of a neighbor, and got him to come over with his camera. The Owl had remained in the same place all this time, and I found that I could get close to the radiator without disturbing him. But finally, when I stood with my hand on the radiator, within a few inches of the Owl, he became alarmed

and apparently no other way in which he could have gotten in.—H. S. SHAW, JR., *Dover, Mass.*

A Long-eared Owl Roost

What is believed to be an unusual observation was recorded by the undersigned on February 4, 1917, in Goodwin Park, in the outskirts of this city. A telephone message in the morning communicated the

news that what was supposed to be a Long-eared Owl had been seen the previous day. This Owl is not at all common here, and so we decided to see for ourselves and verify if possible the earlier observation. Soon after arriving near where the bird had been seen, we found under a clump of small hemlock trees an estimated quantity of not less than four quarts of pellets, many of which will be gathered and sent to Washington for inspection. This in itself was something never before seen by either of us, notwithstanding one of us has been hunting birds for a great many years and has seen so-called 'flights' of Owls and many pellet collections.

A few minutes later one of us discovered in an open-topped pine tree, not more than twenty-five feet from the ground, a single specimen of the Long-eared Owl. Not daring to move for fear the Owl would not be seen by us both, the discoverer of the bird did not stir until joined by his companion, who, upon being shown where the single Owl was roosting, quickly exclaimed "There are two, yes three, four, five, six, seven, good heavens, how many?" Just then the flock rose and we counted eight, and another flew out of a tree ten feet away. We were so astonished by our find that we almost lost sight of still another Owl who had remained behind. To see ten Long-eared Owls, and nine of them in a space not more than six feet square in a single tree, is something of an experience, even to us who have been field-students for upwards of forty and thirty years respectively. We do not find evidence in any book record that shows even half this number being seen in a single flock in the state of Connecticut.—C. W. VIBERT, G. T. GRISWOLD (Hartford Bird Study Club), *Hartford, Conn.*

Notes from Southern Connecticut

The past year was remarkable for the flight of Warblers, and the large numbers of Bay-breasted and Blackburnian Warblers, and the occurrence of certain rare species, the following records of which should be of interest:

HOLBØLL'S GREBE.—March 19, one at Norwalk; March 24, five at Rowayton; April 15 and 20, one at Norwalk.

RING-BILLED GULL.—Though called a rare migrant in the 'Birds of Connecticut,' the writer believes this to be a fairly common, though not generally found species. Several birds were seen in the spring of 1916. September 13, 1916, one was shot over the Housatonic River at Stratford, and is in the Museum at Birdcraft Sanctuary. December 11, 1916, one was shot by duck-hunters at Stratford, and is in the writer's collection. Jan 13, 1917, one was seen feeding in Bridgeport Harbor.

LAUGHING GULL.—These Gulls have increased during the past few years until last fall they appeared in flocks of over one hundred among the islands off this place.

BONAPARTE'S GULL.—A flock of about fifteen of these Gulls stayed on the Housatonic River at Stratford from September 7 to 13. One that was shot is in Birdcraft Museum at Fairfield.

WILSON'S PETREL.—The 'Birds of Connecticut' says of the Wilson's Petrel (page 26): "We have no specific records of this species," yet these Petrels have been fairly common in the Sound off this place for some years to the writer's knowledge, coming in among the islands at times, and once in the harbor. The lobster fishermen tell me that these Petrels help them to locate their buoys by sitting on them. I have counted twenty in two hours. One shot August 7, 1914, is in the collection of the Fish and Game Commissioners, and one was taken by a member of the Biological Survey the past summer.

KING EIDER.—One shot at Fairfield Beach on December 14, 1916, by Mr. Leon Beardsley, is mounted in Birdcraft Museum.

KILLDEER.—Apparently these birds are coming back to breed in these parts for I saw a pair with nest completed at Wilton on June 10, 1916, and Mr. Herbert Sniffens tells me that a pair raised a brood on his farm at Stratford. In August they were plentiful on one of the ponds that had been drained.

EVENING GROSBEAK.—Eight birds were in Norwalk from March 8 to 13, 1916. They were seen by many and were feeding on haccatack berries.

LAWRENCE'S WARBLER.—On May 12, 1916, a male was observed at Waterbury, and on May 20, another male was found at Wilton. It was feeding near the ground in willows and was very tame. A party of fifteen people watched it as long as they cared to do so at a very close range. Believing it to be a migrant, no effort was made to watch it further, but Mr. Edward Godfrey, one of the original party, passing the place in June found a Lawrence Warbler feeding young in the same field where we found this one on May 20, and it may have been the same bird.

MOCKINGBIRD.—One lived about the residential section of Bridgeport all last winter, and I photographed it on March 21 in its haunts.

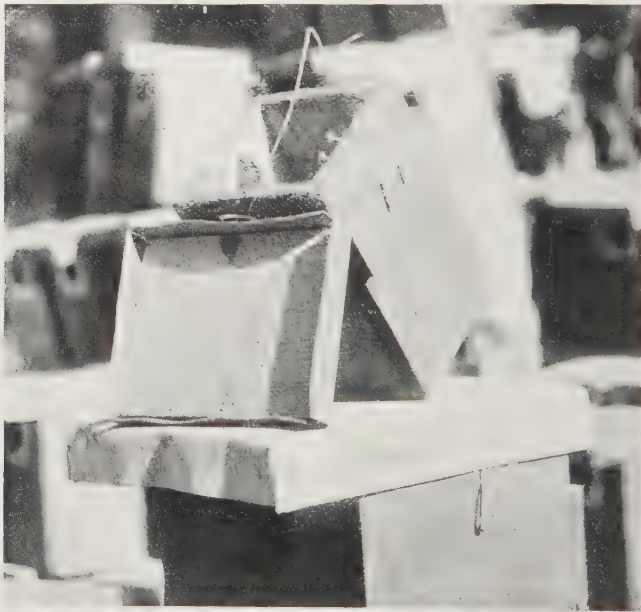
'ACADIAN' CHICKADEE.—One found by one Abbot, identified by Mark Candee, and showed to me on January 11, 1917, has been in the same locality since and was seen by many people on January 18, 1916.—WILBUR F. SMITH, *South Norwalk, Conn.*

The Wellesley Bird-Box

Many people would take greater interest in encouraging the native birds if most of the equipment now to be had on the market were not quite so expensive. Simple forms of feeders and bird-boxes seem to be quite as efficient as the more elaborate.

If in any community it is desired to introduce a large number of bird-boxes at low cost it is only necessary to settle on some simple design and have them made at the nearest box (packing-box) factory.

The plan can be carried out by an indi-



THE WELLESLEY BIRD-BOX

Dimensions of stock, top, $5 \times 6\frac{1}{2}$ inches; front and back, each $5 \times 7\frac{1}{2}$ inches; sides, $4 \times 7\frac{1}{2}$ inches; bottom, 4×4 inches. The box is put together with $\frac{1}{4}$ -inch galvanized box nails. The roofing-paper and entrance guard fastened with $\frac{1}{2}$ -inch galvanized tacks. The top of the box is removable, but is held in position by a piece of galvanized No. 16 soft iron wire looped over a tack on each side. Two holes about one inch apart are bored in the upper part of the box in a downward direction from the inside so that when the cover is off, the box can be nailed to a post or tree with $\frac{3}{4}$ -inch galvanized wire nails. To be stained any dull neutral shade.

vidual or by a local Audubon Society, and the boxes distributed at cost to those who want them. The box factories will make the cost extremely low provided they can

point of introduction in New York, nor how far it has already made its way. I suppose that Starlings have been reported from points further south than Baltimore,



WELLESLEY BIRD-BOX IN POSITION

A guard of thin galvanized iron surrounds the entrance. For Bluebirds and Swallows the opening should be one and one half inches in diameter; for smaller birds one and a quarter inches

deliver them by truck, unpacked, at one point.

I tried the experiment with a lot of one thousand and it worked so well that I have ordered more. They cost fifteen cents each. The style adopted, which I tested with success during the past year, is outlined in the accompanying photographs. The top of the box is removable for cleaning and all nails, tacks, and other metal parts are of galvanized iron.

To distinguish the box as a type I have called it the 'Wellesley Bird-Box.'—JOHN C. LEE, *Wellesley, Mass.*

The Starling in Baltimore

I do not know how close a watch is being kept on the spread of the European Starling throughout our country from the

but I send you the following item for what it may be worth:

A flock of European Starlings, containing several hundred individuals, has been roosting at night for an unknown length of time in a row of sycamore trees on Mt. Royal Avenue bordering the sunken gardens and overlooking the Union Station and the surrounding railroad yards. That row of trees has for several years been a roosting-place for thousands of English Sparrows during the winter months, and it is possible that the Starlings were there for several nights before being noted, although I pass that place practically every evening during the week. My attention was first attracted by unfamiliar notes on the evening of January 16, 1917, and subsequent investigation proved the presence of a large number of

Starlings. The Starlings have been noted there every evening since that date except on January 21, when I did not pass the place. Since last fall I have occasionally seen a few Starlings, from one to five at a time, in the parks and suburbs of Baltimore; but this is the first time I have known of such large numbers coming right into the heart of the city.—J. HOLLOWELL PARKER, *Baltimore, Md.*

Lark Sparrows near Grafton, W. Va.

On June 18, 1916, two adult and two young Lark Sparrows were seen in an orchard about eight miles north of Grafton. The birds were flying about in the orchard and seemed perfectly contented. Two young birds were in the trees. The young birds were being fed by the adult birds. The young birds had evidently been hatched in the orchard or near-by. There might have been more young birds but only two were seen. These were the first Lark Sparrows known to have visited this section of the country. I feel sure that I have never seen them before. We were able to identify the birds as we could get within thirty feet of them. I was in this part of the country but one day, and there was no one else to observe the birds later. A month afterward I was in the same orchard and no trace of the birds could be found.—A. J. DADISMAN, *Morgantown, W. Va.*

Bohemian Waxwings in Seattle, Wash.

Bird-lovers of this section, especially those along the lake-shore of this city, have been treated to a rare sight which we feel will be of interest to the friends of birds everywhere. It was the presence of Bohemian Waxwings by the thousand! The birds, accompanied by Cedar Waxwings, and by hundreds and hundreds of Robins (the latter flying in flocks by themselves but following, apparently, wherever the Waxwings led), were first seen on the morning of December 30, 1916, when they were noticed flying south. At intervals thereafter, usually in the forenoon, these

birds returned, and always, when in our immediate vicinity, settled on tree and house-top or even on telephone wires, from which resting-places they made frequent excursions into the numerous madrona trees around. The berries, of course, were the objective. While thus engaged they afforded us excellent opportunities for observation. Indeed, so close could we get that it would have been possible more than once to simply reach out and stroke the Bohemian's smooth plumage, but the Robin was less trusting. Though some of his number were always equally within reach, they were constantly giving warnings which would cause big numbers of all the birds to suddenly fly away, apparently in fear. But always they returned. And always the Bohemians seemed to be more numerous than the Cedar Waxwings, or the Robins. Since the Bohemian is supposed "not to come into this vicinity," officers and members of our local Audubon Society were disposed to be suspicious of our identifications on the first reports, but fortunately several of them had occasion to see for themselves and verify our statements now.

Why the birds came is a mystery. No one versed in bird-lore here will take it upon himself to hazard an interpretation of the phenomenon. If it was food they came for, they left before the supply was much decreased, for there are madronas and alder trees whose berries are still untouched. And if the South was their intended destination, why did they go north again? The last flocks, numbering several hundreds, were seen for the last time on January 9, in the morning, and after much calling, in the familiar lispings way, and no end of circling about (but no feeding at all) they went back into the North.—J. DEAN and F. D. TERRY, *Seattle, Wash.*

Prairie Horned Lark in Maryland

The notes of Mrs. Arthur F. Gardner, of Troy, N. Y., in your July-August, 1916 number on the Horned Lark, remind me of some observations made here in western

Maryland on the Prairie Horned Lark which seem to show that they breed in this region, although I believe their nests have not been found.

In the Maryland Geological Survey of Allegany County, published in 1900, there is a list of summer birds of western Maryland by Edward A. Preble. He says of the Prairie Horned Lark: "While driving through Garret County [the western County of Maryland], on May 18, I saw a male bird of this species. He was on a fence-rail, singing lustily, and was not at all shy. It was near the town of Accident, about ten miles from the northwestern corner of the county. There can be little doubt but that the bird was breeding." On this page of the report I have noted: "August 26, 1911. Saw a flock on barren hill east of city. Did they not breed somewhere in this region? August 24, 1912. Same locality. Again this year I note, June 23, 1916. The same locality." Rev. Mr. Eifrig, formerly of this city, a well-known ornithologist and naturalist, in a list of local birds, writes as follows of the Prairie Horned Lark: "Often seen in flocks on hills and roads in this vicinity, along with Juncos, Tree Sparrows, and so forth. Breeds in the higher parts."

My idea has been that they breed in the open 'glades' near Oakland and Mountain Lake, Garrett County. These observations seem to show that they are extending their breeding-range, which has, until recently, been recorded as the prairies of the Middle West eastward to northern New England. It may have ranged eastward and southward as the country became open and more deforested.

I shall look out for them another season and see if we can positively find their breeding habitat.—EDWARD HARRIS, SR., *Cumberland, Md.*

Smoke Trees and Purple Finches

The seeds of a group of six 'smoke trees,' near my house at Westport Point, southern Massachusetts, are sought before they are fully formed by a flock of Purple Finches and feasted upon as long as they last. It

is a curious fact that we never see these Purple Finches at any other time. We do not know where they live, but they have come to these same smoke trees every August for more than twenty years.—MRS. CUTHBERT HALL.

Is the Cape May Warbler Increasing in Numbers?

Have any of your readers, I wonder, observed a marked increase, within the last two or three years, in the number of Cape May Warblers migrating through this country? My own observations of that species are striking evidence of such an increase. In more than fifteen years of bird-study, covering a very large area in northeastern United States, I had not succeeded, previous to 1914, in recording a single Cape May; whereas, in the two and a half years since April, 1914, I have recorded about twenty individuals of that species, at widely separated times and places, in the states of Maine, Massachusetts, and New Hampshire. Such an experience seems rather significant.—R. E. ROBBINS, *Brookline, Mass.*

Evening Grosbeak in Ontario

Having read many articles in BIRD-LORE concerning Evening Grosbeaks which have been seen in many parts of the country, I thought that it might be of interest to you to know about a flock that has annually visited this town for the last four years. The flock consists of about fifteen males and females, and they feed on hawthorn berries and the seeds of the hard maple, seeming to prefer the latter. They are now more common than the Pine Grosbeak, of which species I have not seen a specimen for two years, although they used to be regular visitors.—R. B. CHELTON, *Cobourg, Ont.*

Evening Grosbeaks at Morristown, N. J.

On December 16, 1916, I saw my first Evening Grosbeak. It was a single individual, a male and was near the top

of a tall maple. A few days later two of my neighbors reported that they had seen a single one in the same vicinity. About the middle of January a report came to me that a flock of seven or eight had been seen in the Sherman Hill section of the town, and on January 25 and 26 I saw a flock of about the same number feeding on sumach berries in a vacant lot just in the rear of my yard. I did not see them again until February 16, when a flock of about ten birds was seen in a black locust at the end of my garden. A short article was published in one of our local papers and since then several reports have come to me of others having seen these birds.

Pine Siskins were seen here during November, but seem to have passed on. Redpolls are common. In the course of a two-hours walk this afternoon, I saw probably 100. Two Canadian Nuthatches have been daily visitors to our suet since the latter part of January.—R. C. CASKEN, *Morristown, N. J.*

Cardinal in Rhode Island

During the past week the Cardinal has been reported as seen at Warren, R. I. So far as I am able to ascertain this is the first record of the state.

The bird is a female and is in and around the grounds of the home of Mrs. Albert E. Leach, who first saw it on Tuesday, January 23, at about 3 P.M. At that time she had it under observation with glasses for about five minutes. On January 29, Mrs. Leach, with three others, Miss Mary Crowell, Miss Elizabeth Freeborn, and Miss Virginia Reynolds, had the bird under observation for about thirty minutes, and the same parties saw the bird again on January 30.

This is the first time Mrs. Leach had ever seen the bird, but the other three persons know the bird intimately in the South where they have had them feeding at their windows in other years.

I have not found time to go to Warren and verify these observations, but the above-named persons are good amateur observers, and in consideration of the

fact that three of them are familiar with the bird, I feel safe in reporting it as a new record in Rhode Island.—H. L. MADISON, *Curator Park Museum, Providence, R. I.*

Pickereel Catching Swallow

Some of my friends were fishing on a little lake near here. A Swallow was skimming over the lake very near the water, and a pickereel jumped up and caught the bird in its mouth. No one here has seen such a thing happen before.—CONSTANCE HUMPHREY, *Kalamazoo, Mich.*

A Wren's Nesting-Place

At our country-place, the outside bathroom is not put into use until sometime in May. This spring the pipes were connected the last week in April, and our caretaker unintentionally left the door ajar. When I arrived about the 8th of May, to open the house and put all in readiness for the summer, I found someone ahead of me who had already put her house in order and had established herself comfortably. It was a House Wren, who had taken advantage of the open door, and was satisfied not only on the lower shelf of the little cabinet that hangs over the tub, but built her nest right upon my empty soap-dish.—BLANCHE A. TURNER, *Arcadia, Mo.*

Helpful Young Bluebirds

A pair of Bluebirds successfully raised a brood in our bird-house in May, the young birds leaving the nest the third of June. After several days, the parent birds built a nest in a similar bird-house in a neighbor's yard and raised a second family.

We were interested to observe that the young birds worked with the parents in carrying food to the latest fledglings, also in cleaning the nest. When the second brood left the nest, the 'big brothers' seemed as excited as the parents.—MRS. GEORGE A. HARTER, *Chicago, Ill.*

Book News and Reviews

BRITISH BIRDS. Written and illustrated by A. THORBURN, F. Z. S., with eighty plates in color, showing over four hundred species. In four volumes. 4to. Vol. III, pls. 41—60; Vol. IV, pls. 61—80. Longmans, Green & Co., London and New York.

The appearance of Volume IV marks the completion of this superb work. A noteworthy undertaking under any conditions, its manufacture and publication in England at this time is a tribute to everyone who has been engaged in its production.

In these final volumes, the work of artist, engraver, and typographer shows no falling off from the high standard of excellence established by Volumes I and II. We have had no illustrations of birds published in America which would compare favorably with the plates in this work. There have been state publications where the question of expense was not of primary importance and the best available methods of color engraving were employed, but the results were far below those attained in the volumes under consideration.

Rumor has it that a fully illustrated book is to be published by a state in which there is a greater *per capita* interest in birds than in any other in the Union. We trust that in selecting an engraver of the drawings for this proposed work, the reproductions in Mr. Thorburn's volumes be exhibited as models to be followed as closely as circumstances will permit.

Volume III treats of the Herons, Ducks, Geese and Swans, Pigeons, Gallinaceous Birds, Rails and Coots.

We suppose it is hopeless to expect English writers to employ names for American birds by which they are commonly known in this country, and consequently need not be surprised to see our Sora entered as 'Carolina Crake' (the bill, by the way, in the figure of this species is basally red instead of yellowish green).

Volume IV contains the Bustards and

For reviews of Vols. I and II, see BIRD-LORE.

Cranes, Shore-birds, Terns, Gulls, Auks, Divers, Shearwaters, and Petrels.

The total number of species figured in the four volumes is somewhat over four hundred. To give a plate to each species would have involved a prohibitive expense. Only by placing a number of species on the same plate was it possible to produce a work of this character at a reasonable price. It must be taken for granted, therefore, that the requirements of commercial publication have imposed certain restrictions on the artist for which he is not responsible. The artist, therefore, should not be criticized for an arrangement beyond his control. Rather should we accord him our praise for the skilful and artistic manner in which he has met and usually conquered difficult problems of arrangement and grouping with a result which rarely fails to produce a pleasing whole, while the individual figures, with but few exceptions, portray form, color and character in a wholly accurate and charming manner.—F. M. C.

CONSERVATION OF OUR WILD BIRDS.

Methods of Attracting and Increasing the numbers of Useful Birds and the Establishment of Sanctuaries. By BRADFORD A. SCUDDER, Secretary, Massachusetts Fish and Game Proc. Assoc., 748 Tremont Bldg., Boston, Mass., 1916. 71 pages; line cuts.

This is a useful manual on those phases of bird protection which so fortunately are interesting a constantly increasing number of bird-lovers throughout the country. After giving a list of the birds which may nest about our homes, Mr. Scudder tells us what steps are necessary to induce them to take up their abode near ours and describes in detail various types of nesting-boxes, bird-baths, and feeding devices. There is also a chapter on planting food-bearing trees, shrubs, vines and plants for land birds and also one on planting for aquatic birds. Practical suggestions are given for the establishment of bird sanctuaries on which the author emphasizes

the "importance of not relaxing for a moment the campaign of extermination that must be waged against the enemies of wild life found within the borders of a sanctuary."

Under the head of 'Enemies of Wild Birds' he returns to this same subject and says: "We may never hope to increase the numbers of our useful birds and quadrupeds until their natural enemies and other distinctive agents are either largely removed or reduced to a minimum."

This statement is modified somewhat in succeeding pages, but Mr. Scudder apparently favors more interference with nature's balance than Mr. Forbush advocates (see succeeding review), if we would increase the numbers of song-birds about our homes. Books of this kind cannot have too large a circulation.—F. M. C.

THE NATURAL ENEMIES OF BIRDS. By EDWARD HOWE FORBUSH, State Ornithologist. Economic Biology, Bull. No. 3, Mass. State Board of Agriculture, Boston, 1916. 58 pages; 17 plates.

Our attention has been so focused on the unnatural enemies of birds that we have given comparatively little thought to their natural enemies. Mr. Forbush's paper is therefore a welcome addition to the valuable series on economic ornithology for which we are already indebted to him.

Under the head of 'Introduced Domesticated Enemies' are included the cat, dog, hog, grazing animals, and rat. To these are added the following 'Feral Enemies': Fox, mink, weasel, skunk, raccoon, red, gray and flying squirrel, chipmunk, muskrat, meadow mouse, deer mouse, deer, Shrikes, Grackles, Blue Jay, Crow, Hawks, Owls, and Eagles, while some Gulls, Herons, Wrens and other species are classed as 'Minor Bird Enemies.'

'Introduced Bird Enemies' are the English Sparrow, Starling, and Ring-necked Pheasant and the list is completed by the addition of the snapping turtle, several species of snakes, frogs and fish and, finally, various species of insects which are said to be potentially the greatest enemies of birds.

Against this array of foes it might be imagined that few birds would live to reach maturity, but Mr. Forbush shows how strictly natural enemies, and this excludes introduced species, are necessary to maintain that balance of life which prevents any one species from having an undue advantage over others and thus, in time, overrunning the country in which it lives.

He does not approve, except under certain special conditions, of attempting to control the natural enemies of birds, and he shows the futility of bounties. His studies are summed up in the following conclusions: "(1) Natural enemies of birds are necessary and desirable, as they tend to maintain within proper bounds the numbers of the species on which they prey. (2) Organized attempts to increase the numbers of birds over large areas by destroying indiscriminately all natural enemies are undesirable. (3) Under certain circumstances enemies which have been able to adapt themselves to man and his works and have become unduly numerous may require reduction in numbers. (4) Individuals of useful species which may become particularly destructive should be eliminated. (5) Self-interest on the part of the people most concerned eventually will bring about such reduction of predatory animals as is needed without the stimulus of bounty laws, which in most cases are pernicious and which, if enacted at all, should be directed only against the larger predatory animals or those which are dangerous to human life or exceedingly destructive to domestic animals or crops." —F. M. C.

AN INDEX TO BIRD-LORE—Vols. I—XV, inclusive. Compiled by ERNEST INGER-SOLL. For sale by the National Association of Audubon Societies. Price, 50 cents.

A glance through this useful work of reference impresses one who has been fairly familiar with the contents of BIRD-LORE, with the richness of the store of information which is to be found in a set of this magazine. Aside from the hundreds

of colored figures, over 2,000 photographs of birds have been reproduced, with a corresponding wealth of descriptive matter. We should be grateful to Mr. Ingersoll for making all this material so readily available.—F. M. C.

Ornithological Magazines

THE AUK.—On the opening page of the January issue is a speaking portrait of Daniel Giraud Elliot, which is followed by a memorial address by Dr. Frank M. Chapman who, all too briefly, outlines the life and work of this great ornithologist. Few are privileged to attain such honors as came to him, and his loss will be keenly felt by his friends the world over. Men of such caliber always advance, and uplift the science to which they devote their lives.

As a fine example of a local list, Major Allan Brooks' 'Birds of the Chilliwack District, B. C.,' is to be commended. Collections were made for eleven years, and the results and conclusions regarding 257 species and races are compressed to occupy only a few pages, including a map. Another good local list is one on 'The Birds of Culebra Island, Porto Rico,' by Mr. A. Wetmore. Mr. H. L. Stoddard records 'Notes on a few of the Rarer Birds of Sauk and Dane Counties, Wisconsin.' Mr. H. G. Wright deals at length with 'The Orange-crowned Warbler as a Fall and Winter Visitant in the region of Boston, Massachusetts.'

A new race of the Meadowlark—*Sturnella neglecta confluenta*—from Washington, Oregon and British Columbia, is described by Mr. S. F. Rathbun, a new Finch (*Telespiza ultima*) from Nihoa Island, Hawaiian Islands, is described by Mr. W. A. Bryan, and a new race of the Broad-winged Hawk—*Buteo platypterus iowensis*—from Iowa, is described by Mr. B. H. Bailey. In view of the well known 'melanistic' plumages of many species of Hawks, we wonder if the describer has sufficiently weighed this possibility.

The Thirty-fourth Meeting of the

A.O.U., in Philadelphia, is reported by the Secretary Mr. J. H. Sage. The A.O.U. has increased in spite of the long list of members deceased during the year.

Before closing this review we would take exception to the too frequent practice of publishing 'sight' records of races that, according to geographical distribution, ought to be the ones seen. For instance at page 91 we find two records of the 'Acadian' Chickadee, a slightly differing form of the Hudsonian Chickadee, and first described from Nova Scotia. How do we know that these birds are not of the race from Labrador, or the race from Hudson Bay? This is not improbable, for at page 86 is recorded the capture of a Mountain Plover on Cape Cod, a bird that should not be found east of the Rockies. And what of the Evening Grosbeaks recorded as *Coccothraustes vespertina vespertiana*? Might not the Rocky Mountain race slip down this way? And the same thing is true of other 'records' we have seen of other birds. So very many old records of species have proved to be something else, when the moth-eaten specimens on which they rested have been examined, that we may well wonder how future students are going to treat sight records, which have nothing more tangible than unsupported opinions to back them.—J. D.

Book News

'Some Bird Friends,' by Henry F. Pullen, is an "intimate introduction" to some of the commoner birds of British Columbia. It is attractively illustrated with twenty half-tones and the text shows a genuine love of birds and enthusiasm for their study. This booklet of 30 pages is published by the Free Lance Publishing Company at Victoria, British Columbia.

'Food Plants to Attract Birds and Protect Fruit,' Circular No. 49 of the Massachusetts State Board of Agriculture, by Edward Howe Forbush, is a publication which may be consulted to advantage at this seasonable time for spring planting.

Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Contributing Editor, MABEL OSGOOD WRIGHT

Published by D. APPLETON & CO.

Vol. XIX Published April 1, 1917 No. 2

SUBSCRIPTION RATES

Price in the United States, one dollar a year; outside the United States, one dollar and twenty-five cents, postage paid.

COPYRIGHTED, 1917, BY FRANK M. CHAPMAN

Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

WITH the next issue of BIRD-LORE we plan to inaugurate an undertaking which it is hoped will be of much interest and value to field students. Authorities on the bird-life of certain regions have consented to supply us with a brief summary of seasonable news in that part of the bird world with which they are familiar. They will tell us, for example, of the character of the winter bird-life of their respective districts, whether it is distinguished by the presence of rare winter visitants or absence of those which should be expected to occur. They will report, in a general way, on the advance of the migration, and, in short, give a résumé of their own observations and those of other local observers who may report to them. The information they contribute will thus serve as a standard of comparison for those students who would know whether conditions in bird-life, as they observe them, are usual or exceptional. These reports will be published as a sub-department of 'Notes from Field and Study,' under the editorship of Mr. Charles H. Rogers.

The year 1916 was rendered memorable in the annals of ornithology by two remarkable discoveries. During the summer, William Stein, a member of one of the American Museum's paleontological expeditions, found the skeleton of a gigantic fossil bird in the lower Eocene deposits of Wyoming. This bird, we learn from a short preliminary announcement in 'The Ameri-

can Museum Journal,' "was much larger than an Ostrich, although not so tall, and had a huge head with a high compressed beak, unlike any living bird." A study of this skeleton has revealed some unexpected facts which, in due time, will be published.

The fossil bird record is so fragmentary that we are apt to take for granted almost any addition to it; but our knowledge of living birds is so comparatively complete that we were not prepared for Dr. W. L. Abbott's most surprising discovery that a local race of the White-winged Crossbill* inhabits the mountains of Santo Domingo.

If the bird were a Red Crossbill its presence, even in a West Indian island, might not be so astounding. Red Crossbills are found as far south as the pine forests of Central America and, in the Alleghanies, to Georgia; but the White-winged species is more boreal and is not known to nest south of New England. How then can we account for its presence as a permanent resident so far south of the range of the species it represents?

We may ask the same question about the Horned Larks that live on the Savanna of Bogotá in the Eastern Andes of Colombia. No other Horned Lark is found in South America or, indeed, in Central America; the nearest point at which the species occurs being southern Mexico.

Possibly we may regard these birds as indicators in nature's self-registering thermometer. Reaching the regions they now occupy during climatic conditions which no longer prevail, one has found a favorable home in the pine forests of a Caribbean island, the other, suitable haunts on a temperate zone Andean plateau. The climate, which we may believe forced them southward, has retreated, so to speak, to its present level, leaving behind it these records on the scale of time.

There is small resemblance between the giant bird which existed some millions of years ago in Wyoming, the Crossbill of Santo Domingo and Horned Lark of Colombia, but what profound depths of ignorance the light they shed reveals!

*See Riley, *Smiths Misc. Coll.*, Vol. 66, No. 15
1916, p. 1

The Audubon Societies

SCHOOL DEPARTMENT

Edited by ALICE HALL WALTER

Address all communications relative to the work of this department to the Editor, 67 Oriole Avenue, Providence, R. I.

"Hitherto my rambles have been confined to the neighborhood of a single spot, with a view of showing how perfectly accessible to all, are numerous and varied natural objects."

"When an inhabitant of the country, it was sufficient to go a few steps from the door, to be in the midst of numerous interesting objects; when a resident of the crowded city, a healthful walk of half an hour placed me where my favorite enjoyment was offered in abundance; and now, when no longer able to *seek* in fields and woods and running streams for that knowledge which cannot readily be elsewhere obtained, the recollection of my former rambles is productive of a satisfaction which past pleasures but seldom bestow."—Rambles of a Naturalist by Dr. John D. Godman, 1859.

A SUGGESTION FOR BIRD AND ARBOR DAY

MANY beautiful and instructive pageants have been given to celebrate historical events or special and significant phases of progress. These entertainments have done much to stimulate interest and civic pride in the development of the towns, cities or neighborhoods which furnished the occasion for their undertaking. The main object of such pageants, indeed, is to draw the people of a community more closely together and to attract those outside to share in the creation of new enterprises and enthusiasms.

The thought comes to one who has witnessed such a pageant: Why not try this idea in a simple way for the improvement of Bird and Arbor Day exercises, and indirectly for the betterment of the conservation of natural resources in all of its manifold forms?

State Audubon Societies could do a great deal in this direction by getting together the materials for a Bird and Arbor Day pageant on an inexpensive scale, within the means as well as within the ability of rural or urban schools. The effort put into an entertainment of this kind is never wasted, provided that effort is well directed. There is an opportunity here for the exercise of a variety of talents and the person who is able to conceive and work out a Bird and Arbor Day pageant of merit, suitable for presentation by the scholars in our primary grade and high schools will deserve our attention and praise.

The Bird masque, 'Sanctuary', written by Percy MacKaye, is beyond the ability of the average school, but wherever it has been properly presented, it has not only given much pleasure, but also, awakened keen interest in birds and nature.—A. H. W.

[NOTE: See BIRD-LORE, Vol. XVIII, No. 6, pp. 451 and 465.]

JUNIOR AUDUBON WORK

For Teachers and Pupils

Exercise XXXII: Correlated with Reading, English, and Music

THE POET'S TREASURE

"And now Spring beckons me with verdant hand, . . . "—Li Po. A.D. 702-762.

There is much wealth which is free to everyone in this great, whirling, beautiful world. Nature's treasures are so numerous that one could scarcely learn to name them all in a lifetime, although they are free to any one who will seek¹ them. It is the gift of poets to discover treasures hidden from ordinary sight, and to them you must go to find the way to many a treasure-trove. You cannot begin too soon to become familiar with the ways and words of poets. The *great* poets give generously of the wealth they have found, just as great musicians or great artists do. Why not take *the best* for your own, then, when it can be had for the accepting, instead of wasting your finest sense of appreciation upon the less worthy or the unworthy? If any one should offer you a choice between several coats, or hats, or automobiles, you would surely take the best. Why choose low-grade music or inferior books or ordinary pictures when you can as easily have the best?

To help you prepare for Bird and Arbor Day, the following bits of treasure have been found and are here offered to you.

In the fourth century B. C. there lived a Chinese poet who was also a minister of state to a feudal prince. This poet was exiled for political reasons, and went to the distant hill-country where he lived with Nature until his tragic death. Thereafter, in his honor, there was held on the fifth day of the fifth moon a festival called the Dragon-boat Festival.

There follows part of a song written by this poet, whose name was Ch'ü Yün:

"Methinks there's a genius
Roams in the mountains,
Girdled with ivy
And robed in wisteria,
Lips ever smiling,
Of noble demeanour,
Driving the yellow pard,
Tiger-attended,

Couched in a chariot
With banners of cassia,
Cloaked with the orchid,
And crowned with azaleas;
Culling the perfume
Of sweet flowers, he leaves
In the heart a dream-blossom
Memory haunting. . . . "

This is a wonderful Oriental picture, a gem in words, which though translated from the original, still conveys to us the poet's deep delight in Nature's beauty. One can almost see the imaginary Spirit of the Mountains, clothed in flowers, driving a yellow leopard, attended by tigers, who leaves in each responsive heart a dream-blossom.

Between 689 and 740 A.D. a very learned poet named Meng Hao-jan lived and wrote. He went to the hills after spending forty years in study and from his pen we may take these delicate pearls of thought:

"The red gleam o'er the mountains
Goes wavering from sight,
And the quiet moon enhances
The loveliness of night.

"Over the chain of giant peaks
The great red sun goes down,
And in the stealthy floods of night
The distant valleys drown.

"The night wind tells me secrets
Of lotus lilies blue;
And hour by hour the willows
Shake down the chiming dew.

"Yon moon that cleaves the gloomy pine
Has freshness in her train;
Low wind, faint stream and waterfall
Haunt me with their refrain.

"The tired woodman seeks his cot
That twinkles up the hill;
And sleep has touched the wanderers
That sang the twilight still."

What rare sympathy with Nature this poet had, to present to us in so few simple lines such a wealth of beauty! Lute in hand, he wandered "through the fragrant dew-lit ways" to meet a friend, filled with the beauty of the night. Can you hear the willows hour by hour "shake down the chiming dew," as he watched the "stealthy floods of night" drown the distant valleys? Can you see the gleam of light twinkling up the hill from the woodman's cottage and can you feel that moment of silence when sleep touched the wandering birds "that sang the twilight still?"

These poets of long ago knew the birds better than we suspect, and the flowers, trees, skies and mountains, too. Take a few random lines from other Chinese poets who lived before the year 1000 A.D.:

"Night is at hand; the night winds fret afar,
The North winds moan. The waterfowl are gone
To cover o'er the sand-dunes; dawn alone
Shall call them from the sedges. Some bright star
Mirrors her charms upon the silver shoal."

"Oh! she is good, the little rain! and well she knows our need
Who cometh in the time of spring to aid the sundrawn seed;
She wanders with a friendly mind through silent nights unseen,
The furrows feel her happy tears, and lo! the land is green."

"The yellow dusk winds round the city wall:
The crows are drawn to nest,
Silently down the west
They hasten home, and from the branches call."

"I too have felt the wild-bird thrill of song . . ."

The following lines taken from a poem describing a stone image known for "a thousand autumns" as the Celestial Weaver hints at the careful observation of the poet who wrote them:

"And since she breathes not, being stone, the birds
Light on her shoulders, flutter without fear at her still breast. . . ."

"How beautiful and fresh the grass returns!
When golden days decline, the meadow burns;
Yet autumn suns no hidden root have slain,
The spring winds blow, and there is grass again."

"In green pavilions of warm trees
The golden builders toil and sing;
While swallows dip along the leas,
And dabble in the ooze of Spring."

"The peach blooms open on the eastern wall—
I breathe their fragrance, laughing in the glow
Of golden noontide. Suddenly there comes
The revelation of the ancient wind,
Flooding my soul with glory; till I feel
One with the brightness of the first far dawn,
One with the many-coloured spring; and all
The secrets of the scented hearts of flowers
Are whispered through me; . . ."

Could any words express more exquisitely than these the spirit of 'tranquil repose' discerned by the poet-seer in the familiar aspects of nature about him?

"It dwells in the quiet silence,
Unseen upon hill and plain,
'Tis lapped by the tideless harmonies,
It soars with the lonely crane."

It is such a worshipper of nature who bares his head "while some far thrush the silence stirs," and as he scans the sky, welcoming now some early flock of wild geese, or reveling in flowers, and making the world his 'dreaming-place,' voices the feeling of every one who loves nature and finds in it rest and never-ending refreshment.

Who has not, at times at least, felt himself in 'a world apart,' like the ancient Taoist philosopher, exiled and a wanderer, going by the title of the "Old Fisherman of the Mists and Waters," (though as he explained, "he spent his time in angling, but used no bait, his object not being to catch fish")?

These are the lines of his poem entitled:

A WORLD APART

"The Lady Moon is my lover,	I would liefer follow the condor
My friends are the oceans four,	Or the seagull, soaring from ken,
The heavens have roofed me over,	Than bury my godhead yonder
And the dawn is my golden door,	In the dust of the whirl of men."

There have been poets without number gathering hidden treasure since the days of these long dead singers of the East, but I may call your attention to only one at this time, Emily Dickinson, a rare New England genius, whose verses convey delicately traced pictures and a subtle charm reminding one of the Oriental poets.

We may wonder if she herself felt this when she wrote

THE SEA OF SUNSET

"This is the land the sunset washes, These are the banks of the Yellow Sea; Where it rose, or whither it rushes, These are the western mystery!	"Night after night her purple traffic Strews the landing with opal bales; Merchantmen poise upon horizons, Dip, and vanish with fairy sails."
--	--

Find her thin volumes of poems, so overflowing with treasure, and look there for 'May-flower,' 'Purple Clover,' 'Summer Shower,' 'The Snake,' 'Out of the Morning,' 'Mother Nature,' 'The Grass,' 'The Oriole's Secret,' 'In the Garden,' 'The Bluebird,' 'April.' All of her poems are short. Two you may enjoy memorizing.

THE ROBIN

"The robin is the one That interrupts the morn With hurried, few, express reports When March is scarcely on.	"The robin is the one That overflows the noon With her cherubic quantity, An April but begun.
---	--

"The robin is the one
That speechless from her nest
Submits that home and certainty
And sanctity are best."

THE SLEEPING FLOWERS

" 'Whose are the little beds,' I asked, 'Which in the valleys lie?' Some shook their heads, and others smiled, And no one made reply.	" 'Tis iris, sir, and aster, Anemone and bell, Batschia in the blanket red, And chubby daffodil.'
" 'Perhaps they did not hear,' I said; 'I will inquire again. Whose are the beds, the tiny beds So thick upon the plain?"	"Meanwhile at many cradles Her busy foot she plied, Humming the quaintest lullaby That ever rocked a child.
" 'Tis daisy in the shortest; A little farther on, Nearest the door to wake the first, Little leontodon.	" 'Hush! Epigea wakens! The crocus stirs her lids, Rhodora's cheek is crimson,— She's dreaming of the woods.'

"Then, turning from them, reverent,
 'Their bed-time 'tis,' she said;
 'The bumble-bees will wake them
When April woods are red.' "

SUGGESTIONS

Where does wistaria grow? cassia?
 Where do azaleas grow? orchids?
 Why does the poet say "*stealthy* floods of night?"
 What kinds of waterfowl go to cover "among the sedges?"
 Why does the poet say "*sundrawn*" seed?
 What is the picture of the yellow dusk *winding* around the city wall?
 Who are "the *golden builders* in the trees?"
 Why did the poet write "*warm*" trees?
 Do Swallows "dabble in the ooze," that is, gather mud?
 What are the "*tideless harmonies*?"
 To what does the "*cherubic quantity*" of the Robin refer?
 To what habit of nesting does the word "*speechless*" refer?
 Do any birds ever sing on the nest?
 What flower is leontodon? batschia? epigaea? rhodora?
 What do these words mean?
 Do you find the poets' treasure in these quotations?
 Look up *treasure-trove*. Note spelling of all nouns given above.
 Read 'The Rhodora,' by Emerson.—A. H. W.

FOR AND FROM ADULT AND YOUNG OBSERVERS

THE VALUE OF CHARTS AND PICTURES OF BIRDS

I am inclosing a picture of the Junior Audubon Society at Traverse, Minnesota, taken in April. Last October, we formed the club and have had a meeting each month until school closed. At each one we studied a different bird, using the leaflets. Many interesting things were learned about birds and we have all enjoyed the work very much.—CAROLINE D. LUTHER, *Waterville, Minn.*



JUNIOR AUDUBON SOCIETY AT TRAVERSE, MINNESOTA

[It is an encouraging feature of the School Department to receive so many welcome reports of bird-study in schools successfully and profitably carried on to the enjoyment of both teachers and pupils. From time to time, in these columns, suggestions are made or criticisms offered as to the value of bird-charts and pictures. Do not forget that in bird- and nature-study the most important thing is to *learn to observe* at first-hand. The living bird, tree, or flower in its native habitat is the *real* bird, tree, or flower, the one we want to become more and more familiar with and learn to love and understand and cherish.

Pictures and charts are valuable aids but they do not take one far in an *actual acquaintance with nature*, which is the basis of the nature-student's knowledge. Use them then with discrimination, remembering their limitations.—A. H. W.]

A PLAYLET FOR BIRD AND ARBOR DAY EXERCISES

TENNYSON'S BROOK (Sung)

BETH.—[writing] The music of that brook makes a lovely setting for my paper on Audubon, for birds always haunt a brook. [Aloud] John James Audubon was born near New Orleans in 1780. (My! almost a century and a half ago!) When he was a very tiny child, he tried to draw the birds he saw in the woods around him. His father was a French naval officer, so of course he wanted his son to enter the navy and he had teachers to prepare him for this career. His drawing-master set him to sketching horses' heads, but John seized every opportunity to draw his beloved birds. Finally his father realized that he could not be anything but an artist. Audubon painted his birds in their natural colors and, what was just as important, in their natural positions, something that no previous artist had ever done. Some of the greatest scholars in Europe and America were his personal friends, and surely it is fitting that he should be the founder of the society for the protection of birds.

JOHN.—[rushing in with egg in his hand] Sis, see this cunning little egg! I think it is a Robin's.

BETH.—Did you rob a bird's-nest?

JOHN.—No, I'm not that kind. I found it on the ground and thought you'd like it for your Audubon Club meeting this afternoon.

BETH.—John, you ought to do something to stop the destruction of birds. I saw a number of boys with bean-shooters the other day, right here in this neighborhood.

JOHN.—Well, I do try to stop them, but, Sis, I think if they knew more about birds they wouldn't be so cruel.

✓ BETH.—Well you can relieve them of a little of their ignorance. Tell them that man would perish from the earth in seven years if it wasn't for the birds.

JOHN.—[rubbing head] That's pretty strong. How do you make that out?

✓ BETH.—Why, they eat the insects which destroy the food that the farmers plant for us to eat. Birds have an enormous appetite; they eat much more than their own weight. One bird alone eats hundreds of different kinds of insects, caterpillars, and mosquitos. Here is a pamphlet [taking it up and reading from it] published by the Department of Agriculture of the United States. Among other things it says that the Cuckoo eats so many caterpillars that its stomach is lined with hairs; this bird also eats beetles, spiders, and grasshoppers.

WILL.—That's all right, Beth. Everything you say is true, but boys are not the only creatures cruel to birds. What about the 10,000,000 birds used in this country in one season to decorate women's hats? And you know those most costly feathers which ladies like to wear, called aigrettes, are taken from a beautiful bird called the White

Heron. This egret is cruelly torn from the body of the mother bird while she is caring for her young, and when the mother is killed, of course, the little ones die.

BETH.—The Audubon Society has been steadily fighting this evil. New York state and many other states have passed laws to protect the birds, and I assure you we don't wear feathers of any kind on our hats; flowers and ribbons are good enough for us. Of course we could wear Ostrich feathers, because those are plucked harmlessly.

WILL.—O, yes, they are all right.

BETH.—The girls will soon be here to give their reports on birds for the past two weeks. Please stay. I think you will be interested, and we want your help.

[Five or six girls come running in, put hats down and seat themselves.]

GRACE.—Well, I've been to the woods to get some information from the birds themselves. I saw the dearest Song Sparrow, a little brown bird you know, much like the English Sparrow, only he has spots on his breast. I watched him sitting on top of a bush and singing "Sweet, sweet, sweet, very merry-cheer" [turning leaves of her book], and then, away in the deep woods, I heard a voice calling, "Teacher, teacher, teacher."

REBECCA.—O, yes, the Oven-bird! That's a little brown bird too!

GRACE [continues]—and when I drew near the entrance again, I saw a whole colony of Wrens. There was a tiny bird-house on a porch and the mother Wren was going in to feed her babies. The Wrens also are brown and very small; but oh! their notes are so sweet and rapid that they just tumble over one another, and I couldn't attempt to imitate them.

FLORENCE.—And I have been up to Bronx Park; one has a splendid opportunity to study birds there, because they have a large inclosure filled with the various song-birds, and they are all named.

OTHERS.—Isn't that fine!

FLORENCE [continues]—But I wandered out into the adjoining woods, and saw the first bird of spring, the one that carries the sky on his back.

MIRIAM.—The Bluebird!

FLORENCE [continues]—and as I was standing very quietly under a tree, a Wood Thrush came down on a near-by branch and said, "Who are you, who are you?" and I was so thrilled with delight that I didn't answer his question.

MIRIAM.—What a charming experience, but what wouldn't I give to hear a Hermit Thrush! His song is like a beautiful hymn, and I suppose it would be almost irreverent to try to imitate that.

HELEN.—How was the Wood Thrush dressed?

FLORENCE.—He wore a coat of cinnamon-brown and a vest of gray splashed with brown spots.

MARION.—Well, my report is from a place nearer home, our own Prospect Park. I suppose you know over seventy varieties of birds can be seen there. The Purple Grackles are very common; the grass is simply black with these big birds. If I had an old wheelbarrow here, I could show you what the Grackle says, because it is a squeak. Farther out, as I was going through the deep grass, I heard distinctly these words, "You can't see me, you can't see me," and sure enough I couldn't, for the deep grass hid him completely.

HELEN K.—That's the Meadowlark. Down at Nantucket I used to hear him all day. He is a beautiful, large bird with a coat of dark brown and throat and breast of bright yellow.

HELEN D.—I wish I could have seen him, but I did see a Woodpecker, dear little downy fellow, drilling away on the trunk of a tree as if his work in the world was the work that must be done.

GERTRUDE.—Yes, he saves the trees by eating the insects.

REBECCA.—Who says, "Cheer up, cheer up, cheer up?"

ALL.—The Robin!

REBECCA.—Well, as you know, we have some trees in our back yard, and I have been trying to attract the birds this year.

GERTRUDE.—Oh, tell us what you did! I always put crumbs out for them.

REBECCA.—I nailed a tin cup filled with sugar and water in one tree, and another with crumbs in a second tree. I also fastened bones in the branches, and a piece of suet as large as your two hands, and you should have seen the result. The Blue Jay arrived with his outlandish voice, but handsome blue coat and topknot, and the little Chick-a-dee-dee-dee, and the Junco who stays with us all winter, and now the dear Robins. They have built their nest of mud and straw, not so pretty as the Oriole's hanging nest to be sure, but it is very interesting to watch the family life in it. The mother Robin is an excellent disciplinarian; she visits each child in turn with a delicious worm, and if any youngster is inclined to be piggish, she raps him with her bill.

NELLIE.—[rushing in and fanning herself; all say "Hello!"] I just got off the train! Where do you think I've been? to Riverby on the Hudson, to visit Mr. John Burroughs, the greatest living naturalist! See, I have his picture here.

MIRIAM.—What an honor! but tell us what you did.

WILL.—Beg pardon, but isn't Henry Ford, the auto manufacturer, a friend of Mr. Burroughs?

NELLIE.—Yes, and Mr. Ford is a great lover of birds. His whole estate is one vast bird sanctuary. He has bird-houses and feeding-stations and every known comfort to attract and protect the birds. Well, Mr. Burroughs himself met us at the station. You know he is seventy-nine years old, but you should have seen him crank up his Ford car; he says he has to work or people might think he was getting old. On the way up to his house, he pointed out to us a rare bird's nest, or a delicate flower, or an odd tree that we might not have noticed at all. Then he took us to his famous study in the woods called "Slabsides." You can't imagine what a delightful companion Mr. Burroughs is,—why he knows the name of everything in nature, even the different kinds of rocks!

JOHN.—I'm thinking, didn't Mr. Burroughs in his youth live in Washington and know Mr. Lincoln?

NELLIE.—Yes, he had a Government position.

JOHN.—Well, I wonder if you know that story about Mr. Lincoln and the birds. He and a party of gentlemen were riding off to attend to a business matter of importance, when Mr. Lincoln saw two birds that had fallen out of their nest. After several minutes Mr. Lincoln said, "Gentlemen, I must return and put those two birds back into their nest."

WILL.—All great men seem to have loved birds. Nearly every poet has written about them. Shelley sang of the Skylark, Keats of the Nightingale, and of our own poets, Celia Thaxter's 'Sandpiper,' and Longfellow's 'Birds of Killingworth,' are dear to every one.

8 BETH.—Yes, and isn't it Emerson who says,

"Hast thou named all the birds without a gun?
Loved the wood-rose and left it on its stalk?
O, be my friend, and teach me to be thine."

[This simple but suggestive playlet has sufficient action, if well presented, to make an effective part of a Bird and Arbor Day program. Added interest would be gained if the following articles were shown at the proper moment to illustrate the spoken lines: a picture of Audubon and one of his bird pictures if a copy can be secured; a bean-shooter; a picture of the aigrette being torn from the Egret Herons and also, a picture of the Heron in perfect nuptial plumage; a picture of John Burroughs and one of Mr. Ford's bird sanctuary. Hung up on the wall might also be pictures of the various birds mentioned in the playlet with portraits of the poets named and of Abraham Lincoln.]

The quotation from Emerson's lines emphasizes again the value which poets attach to Nature's treasures. In her quaint, delicate way, Emily Dickinson, too, warns the ruthless trespasser who plucks every flower, especially the rarest, and who asserts his supposed right to trample upon or destroy anything which comes to his notice:

"Who robbed the woods,
The trusting woods?
The unsuspecting trees
Brought out their burrs and mosses
His fantasy to please.
He scanned their trinkets, curious,
He grasped, he bore away.
What will the solemn hemlock.
What will the fir-tree say?"

If Bird and Arbor Day teaches anything, it is this lesson of the right use and enjoyment of Nature. The playlet given above was written by Eva Marian Provost in the interest of the Audubon Society and presented at School, No. 167, Brooklyn, N. Y. "As a result of the enthusiasm it awakened," twelve Junior Audubon Societies were formed during the year.—A. H. W.]

THE SKYLARK AT HOME

Dorking, Surrey, England, July 9, 1905.

Took a walk after breakfast. There was a continuous singing of Larks, soft and low, all over the fields of standing grain, and once in a while a bird would rise, ascend higher than the trees, and hover in the air, pouring out liquid trills, and after a minute would drop to the ground. I was enchanted at this, for I had feared it was getting too late in the summer to hear a Skylark. The best was to come, however. One started up, singing, and continued soaring around and gradually rising higher and higher, up and up, until it was a tiny speck which it was hard to keep in sight in the bright sky. Leaning against a fence-post, I tipped my umbrella toward the sun to protect my eyes from the glare, so that I could watch the singer, which was almost in the zenith. Once I lost it, but knew it was there, for the sweet, unceasing trilling music still floated down. The bird kept in the sky fully five minutes, perhaps longer. Then it descended slowly, growing larger to the sight, and, just at the last, stopping its circling, it came down in a straight line, still keeping up its singing until it alighted. It was worth crossing the ocean to hear that Skylark sing.—MISS LUCY UPTON, *Providence, R. I.*

[The writer of the above, an invalid who now is able to observe birds only occasionally from her room, which overlooks a few trees in a somewhat open corner of a city street, has so fine an appreciation of nature that her words, not originally intended for publication, will appeal to us all, expressing as they do the result of keen observation and sympathetic understanding.

She says: "I have been trying to analyze the fascination of bird-study, as compared with other lines of nature-study. It does appeal more to me. My recreation hobby for years was botany, and it gave me much pleasure. I was nearly fifty before I began to pay any attention to birds and I have often regretted that I had no interest in them

when I was young. The only desire I could have for beginning life over again would be that I might have more intimacy with birds. I have had a few lovely experiences that I would like to share with you."

Read Shelley's *Skylark* and memorize it, a simple task that will bring you much joy.—A. H. W.]

AN ALBINO CROW

One day in late spring I noticed a flock of Crows with a white bird among them.

The Crows lit on a corn-piece and began to dig up the little corn.

I looked on for awhile and then shouted at them. They all rose from the ground, the white bird taking the lead. That was the last I saw of them that day. The next day I saw the white Crow again. It sat on a fence-post and cawed like a Crow. It was just the size of a black Crow. One morning last summer I saw another white Crow. It cawed to the rest and they flew and it took the lead.—ROGER D. PINKHAM (age 12 years), *Lancaster, N. H.*

[Albino birds, like albino creatures of any kind, are rare, so mark it as a red-letter day when you see one. In certain lights, white is a more striking color than red or blue or green, and it plays a decidedly important part in animal and plant coloration. See Chapman's 'Handbook,' pp. 92-96, and also, when visiting museums look for exhibits demonstrating this fact.—A. H. W.]

MY REAL ESTATE BUSINESS

I entered the real estate business in 1913, and my first advertisement was put in the 'Bird News' of our country place. I had five houses for rent, three for Wrens and two for Bluebirds. They were nailed on shady trees which grew quite near together. My first caller was a Wren who looked a little white house over carefully but was much displeased with the doorway. She peeped into the house and then called for her mate. This she repeated three times before her husband arrived. Both went in but came right out and immediately left. I found out later that the doorway was made entirely wrong, and to make it comfortable and cozy I would have to bore the door hole at least an inch above the floor. I did so and the next summer the house was occupied by a family of Wrens, who paid well for the rent. I then repaired all of my houses the same way only making the Bluebirds' doorway larger.

I was so encouraged that summer that I bought more houses, and the increase of feathered neighbors was greatly noticed.

In the winter I decided to keep lunch-counters and they were supplied daily with suet, sunflower seeds, millet, and wheat. My chief visitors were the White-breasted Nuthatches, and a stream of them was as continuous as a stream of water flowing into the ocean, only their ocean was the food-counter.

Downy Woodpeckers were seen quite often at the counters, and Flickers and Juncos. Song and Tree Sparrows came occasionally, and toward the end of winter they were almost as regular visitors as the Nuthatches.

This summer, 1916, more birds have rented my houses than the two last summers could total. English Sparrows are seen little around the house, and I am glad to say that I have more than twenty houses, besides food-counters and -shelves, and I am planning to buy more houses and I hope to have many bathing-places before next summer, so I can call our five-acre lawn a real bird sanctuary.—SARAH W. WEAVER (age 13), "*Clynmalira*," *Monkton, Md.*

[We have few more active bird-students than the writer of this article which spells enjoyment of nature in every word. "I now have a branch of the Audubon Society," she writes, "and I belong to the Maryland Wild Bird Protective Association. I am studying and hope to be a bird lecturer when I am older." We need more people who are *really acquainted* with birds and nature to give talks in schools and elsewhere.—A. H. W.]

THE TRUTH ABOUT CATS AND BIRDS

There is a very curious thing going on at our house. And what is it? You shall hear about it now.

There are two Mockingbirds around our home that started it all by chirping so much one morning that my grandmother looked out of her window to see what all the fuss was about, and there was a cat, and one of the Mockingbirds, and the Mockingbird would fly down and pick the cat and then fly up before the cat could get it.

And one day Mother came running and said, "Come out and see the Mockingbird's nest." So I went out and there was the Mockingbird's nest. And there were three huge mouths that belonged to the little Mockingbirds, and we could see their heads sticking up out of the nest.

One day there was a terrible downpour of rain. And next day there was only one little Mockingbird left. And you see the Mockingbirds picked all the cats that came near the nest because they were afraid the cats would catch them.

We are sure that the rain drowned the other two little Mockingbirds. That afternoon Mother looked all around on the ground, but she didn't see them. But one morning, before seven o'clock, I heard the Mockingbirds calling, so I got up and looked out of my window, and there was one of our cats, and there was the poor little Mockingbird and twice the cat attacked the little Mockingbird, but we scared the cat away.

Then when our cook, Ellen, came in she put the bird on the fence, but it flew right down into the next yard. And this is the end.—LOUISE ROBINSON KING (7 years), *Charleston, S. C.*

[If you have not read Sidney Lanier's delightful story about a pet Mockingbird, be sure to get it soon. It would be a charming selection to read aloud at a Junior Audubon Society meeting. As to cats and birds, don't try to apologize for cats or to excuse them for wanting to destroy birds. It is their natural habit, and the sensible thing is to remember this and to discover some way whereby cats and birds can be kept apart. Mr. Howard Cleaves in an admirable illustrated lecture upon matters connected with bird-

banding and bird-protection, shows a device whereby cats can be given ample outdoor space under piazzas, well latticed.

Those who like cats and wish to keep them ought, in justice to their neighbors who may not like cats, as well as in justice to birds and the cats themselves, adopt some simple, effective way of giving their pets outdoor exercise without endangering bird-life or encroaching upon the rights of others. Let us use tact in this matter, but at the same time let us do something sensible and to the point. The little girl who sent in this interesting contribution wrote down her observations with "absolutely no help of any kind."—A. H. W.]

A FAMILY OF FOREST BABIES

'Twas a glorious morn in springtime
When all Nature was astir;
All around the birds were singing
And the insects were awhir.

Along the country roadside
Violets raised their faces bright,
And where'er one looked or listened
There was beauty and delight.

We were on our way to school
And our pleasure ever grew
When we found a bird or blossom
Or a creature that was new.

Driving up a wooded mountain
We were suddenly surprised
By a whirling rush and flutter
Right before our very eyes.

'Twas a frightened mother Partridge
With her brood just off the nest,
And, to save her young, she flew
Swiftly 'gainst the horse's breast.

Instantly we made a halt.
What was this we had espied?
Baby Partridges so young
That they had not learned to hide!

Scattered all about the roadway—
'Twas the rarest sight to see—
Were the sweetest, dearest babies
Found in Nature's nursery.

Then we caught one—yes, 'twas true,
A baby Partridge—what a prize!
We must hold it and see closer
Those most wondrous sparkling eyes.

It was only one brief moment
That we were so greatly blessed;
Then reluctantly, but gently,
It was placed among the rest,

For the frantic mother Partridge
Flew at us in great concern.
'Twas a most important lesson
That such wee babes had to learn.

Soon with sudden understanding
They all did as they were bidden,
And with their devoted mother
Quickly under leaves were hidden.

So this kindergarten lesson
For the forest children bright,
Most impressively was taught
And observed with great delight.

Thus does every baby Partridge
Learn the lesson, too, I ween,
But seldom are we humans blessed
By beholding such a scene.

—MISS ADELAIDE L. MOORE, *Winsted, Conn.*

[The incident described is vouched for by the writer, to "the truth of every word." Another correspondent sends notes about a brood of nine little Partridges, which at the time of writing were "only a day or two old . . . too young to know any fear." He adds, "a week longer and you could not get near one."—A. H. W.]

THE SAGE GROUSE

By T. GILBERT PEARSON

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 91

On a beautiful July evening our little party left the open waters of Lower Klamath Lake and slowly made its way up a combined creek and canal to Laird's Landing. At the little wharf the Audubon patrol-boat 'Grebe' came to rest, and we stepped out to find before us the ranch-buildings of a small stock-raiser lying in a semi-circle of ragged desert hills that rose in uneven terraces to the distant horizon. A Western Meadowlark was singing in the yard and numerous Mourning Doves, the most ubiquitous bird in North America, were flying about. In the one small cluster of trees within sight Bullock's Orioles were nesting. Snipe and Phalaropes were brooding their eggs in the neighboring marsh, and a Western Horned Owl had only the night before moved her young from the big barn to the trees where the Orioles' hammock nests swung.

These evidences of bird-life were noted within a few minutes after landing, but we had come in quest of something else—we sought a certain bird which the writer had never seen. There were plenty in the neighborhood we were told, and to find them we need only walk out on the sage-clad hills. The country had once been an interminable jumble of lava beds disgorged from a heated and groaning earth. On every hand lay blocks of black volcanic rock, but the rain and frost of centuries had worn away the igneous mass and made the soil that now furnished a scanty foothold for the sage. Over these silent wastes we walked. Twice we were saluted by the song of the Sage Thrasher, and thrice the trilling, canary-like notes of the Brewer's Sparrow were borne to our ears.

Suddenly, only a few feet distant, a large bird burst from cover and went rushing away through the air at a good rate. To my startled gaze it seemed almost as large as a Turkey, although probably it weighed not more than four pounds. Its flight was distinctive. Turning its body to the left it gave four hasty wing-beats, then sailed on an even keel, only to turn to the right in another moment and repeat the performance. Thus alternately sailing and flying, while turning its body first to one side and then to the other, it pursued its course for perhaps a third of a mile and dropped again among the sage-brush. We had found the object we sought, the great Sage Grouse of the desert plains, the largest Grouse in the world save the Capercaillie of Europe. From bill-tip to tail-tip a grown male measures two and a half feet, and the expanse of its wings is a yard or more.

This was near the northern boundary of California and at almost the westernmost limit of the bird's range.



SAGE GROUSE

Order—GALLINÆ

Genus—CENTROCERCUS

Family—TETRAONIDÆ

Species—UROPHASIANUS

National Association of Audubon Societies

The haunt of the Sage Hen corresponds very nearly to that portion of North America where the sage-brush grows; thus it is found in southern British Columbia and southern Alberta, and thence southward through eastern Oregon, Montana, Wyoming, Idaho, Colorado, Nevada, Utah and eastern California. The southern limit of their range is reached when the desert growth turns from sage-brush to creosote in northern Arizona and New Mexico.

Throughout all this vast region this feathered monarch of the plains was at one time abundant. Formerly it was not extensively shot for the reason that antelope, deer, and other larger game were usually to be met with. With the passing of the big game and the introduction of breech-loading guns, a sad change has come over the fortunes of the Sage Hen. In some remote corners of the West where hunters rarely penetrate, these naturally trusting birds are so tame at times that one may knock them over with a stick. As a general thing, however, they have learned a proper dread of their human enemies, and in many sections where the remnants of the former flocks are still to be found it is frequently difficult to approach within shooting distance before the birds take wing.

This Grouse feeds very largely on the leaves of the sage-brush, and its flesh is at times strongly permeated with the odor of this plant. Hence, experienced Westerners seldom shoot the old birds, for their flesh is tough and strong, and unless prepared by a master cook is usually regarded as totally unfit for food. Irwin Cobb, after such an experience, named the bird 'The Battle Hen of the Republic.' Young birds of the year that have fed largely on grasshoppers and other insects are regarded as being a choice food, and are esteemed as highly as the Ruffed Grouse or Bob-White. In the deserts around Burns, Oregon, I found the rangers quite able to distinguish between the old and young when the birds rose from the ground. That the young are quite as good as any game bird in the land was proven to me by the delicious repast set before me by some of the good people of this arid country. The Sage Grouse are entirely terrestrial; living in regions where trees are rare they have never acquired the habit of alighting on a limb. Experienced gunners speak with admiration of the bird's ability to hide on the ground where there is extremely little cover, the only possible protection being the low growth of scattered sage-brush.

Observers have long noted that the feathers on the breast of the male Sage Grouse are often found in a worn and frayed condition, which would seem to indicate that this portion of the plumage, for some reason, receives much rougher treatment than elsewhere on the body. An explanation of this and also some interesting notes on the bird's behavior during the breeding-season was published some years ago in *The Auk* by Mr. Frank Bond who, while living in the West, had abundant opportunities to observe the activities of this interesting bird.

"The peculiar feathers of the breast of the Sage Cock," he writes, "are more or less faithfully described by every ornithologist who has published a

sketch of the bird; but as yet I have seen no explanation of the cause of the wearing away of the barbs and even shafts of the feathers of the lower neck. These feathers are worn away during that period of sexual excitement which causes many birds to develop odd and eccentric habits until the nuptial season is passed. The Sage Cock is unable to produce the musical booming sound of the Prairie Chicken, the forcible expulsion of the air from the sacs producing an inconsequential chuckling noise only; nevertheless the bird offers reasonable entertainment to any individual who will rise early and stroll out into the sage-brush a hundred yards from the campfire.

"During the months of April and May the Sage Cocks are usually found in small flocks of a half dozen or more, stalking about with tails erect and spread after the manner of the strutting Turkey cock, but I have never seen the Grouse dragging their wings upon the ground, turkey fashion, and in the manner described by Dr. Newberry in the quotation from this author found on page 406 of Dr. Coues' 'Birds of the Northwest,' nor have I ever found a wing of a Sage Cock, in this or any other season, which exhibits the slightest wearing away of the primaries. Instead of dragging its wings upon the ground, the Sage Cock will enormously inflate the air-sacs of the neck until the whole neck and breast is balloon-like in appearance, then stooping forward, almost the entire weight of the body is thrown upon the distended portion, and the birds slides along on the bare ground or short grass for some distance, the performance being concluded by the expulsion of the air from the sacs with a variety of chuckling, cackling, or rumbling sounds. This performance is continued probably daily, during the pairing and nesting season, and of course the feathers are worn away by the constant friction."

Mr. E. S. Cameron, who has studied the habits of the Sage Grouse in Montana, makes further comments on the peculiar antics of these birds when in spring the mating instinct becomes strongly developed. In part he says:

"During the first half of April the males repair to a regular 'playground,' but it is a difficult matter to observe their love-antics on account of the encompassing sage. However, on April 7, 1896, my wife and I happened to ride close upon a number of old cocks, near our ranch, which were engaged with their play in a small open space. They never fought nor threatened each other, but strutted or paraded before some hens concealed in the sage-bushes, and were entirely occupied with a most grotesque rivalry. By ruffling up all their feathers, spreading their tails, and dragging their wings along the ground, they looked much larger than they really were, while they produced a rattling sound with their quills after the manner of Turkey cocks and Peafowl. At the same time they continuously uttered a kind of whistling challenge, and, distending their necks by means of their air-sacs, erected an enormous white ruff. As the playground was small, the eight or nine cocks upon it were in imminent danger of a collision, but for the ten minutes that we watched them this did not take place, nor were there any moments of ecstatic oblivion for which some game-

birds are famous. As will be seen from the above their courtship is rather a display than a 'play,' thus differing from the performance of the Sharp-tailed Grouse.

Like all Grouse, this species has its nest on the ground. This consists of a slight hollow, usually under the shelter of a sage-bush, but sometimes it may be found under a bunch of high grass in the neighborhood of some stream or small body of water. Occasionally one may come across a nest containing a slight lining of grass-blades, or of sage-brush, twigs, or leaves, but more often there is no lining of any character.

In number the eggs range from six to nine. They are olive-buff or greenish brown in color, and are prettily marked with round spots of dark brown.

As already intimated, the food of the Sage Hen, to a considerable extent, is composed of the leaves of the sage-brush, but the birds also eat other leaves, tender plants, and even blossoms. Grasshoppers, ants, and such other insects as are available are also consumed. I have never heard a farmer complain of a Sage Grouse injuring his growing crops except in rare instances, although this may occur to a very limited extent. Perhaps one reason for the lack of complaints is that when a district becomes thickly settled, and contains many farms where crops might be injured, the birds have become so depleted by shooting that any destruction they may do is hardly noticeable.

The time has arrived in the history of the Sage Grouse when it is necessary that more restrictive measures should be enacted and enforced for its protection if the bird is to be spared from the fate of the antelope, which at one time existed in great numbers over a large part of the range in which the Sage Grouse still persists.

It is true that laws have been enacted for their protection, but these are not adequate; for instance, in Idaho, the birds may be shot for three and a half months, and in Nevada, four and a half months each year. This is entirely too long a season, especially when we take into consideration that the bag-limit, or in other words the number of birds that may legally be killed in a day, is ten in Nevada and in Idaho, twelve. Thus it will be seen that in Idaho the law permits a man to kill legally not less than 1,176 Sage Grouse in a single season.

The state of Washington has already taken steps in the right direction by permitting an open season of only fifteen days, that is from October 15 to November 1, and allowing a bag-limit of only five birds daily.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, Secretary

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City.

	WILLIAM DUTCHER, <i>President</i>	
FREDERIC A. LUCAS, <i>Acting President</i>		T. GILBERT PEARSON, <i>Secretary</i>
THEODORE S. PALMER, <i>First Vice-President</i>		JONATHAN DWIGHT, JR., <i>Treasurer</i>
	SAMUEL T. CARTER, JR., <i>Attorney</i>	

Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

THE MIGRATORY BIRD TREATY BILL

In the last issue of BIRD-LORE reference was made to a bill introduced in Congress on January 13, 1917, by Representative Flood of Virginia, the purpose of which was to give force and power to the treaty for the protection of migratory birds ratified between this country and Great Britain on December 7, 1916. That Treaty, it will be recalled, covers the main provisions of the McLean Law for the protection of migratory birds enacted in 1913, concerning the constitutionality of which some question has been raised.

The same day that Mr. Flood took this action a similar bill was introduced in the Senate by Senator Hitchcock of Kansas, and was referred to the Committee on Agriculture.

As the session of Congress this year terminated on March 4, it was apparent from the beginning that energetic action must be taken if we hoped to get a consideration of the measure in the jam of legislative work that Congress must consider. This Association at once began an active campaign in its interest. Many circulars were sent to members, affiliated societies and clubs, and to persons throughout the country who, it was thought, would be interested in learning of the situation. As

a result thousands of letters and telegrams were despatched to the Senators and Congressmen requesting their support.

The Secretary of the Association spent most of the time in Washington during the last six weeks of Congress. At the expense of the Association, John H. Wallace, of Alabama, and Alva Clapp, of Kansas, went to Washington to consult with their Representatives and acquaint them with the sentiment at home on the subject. As a result of the educational work thus done, an abundance of votes was secured in both Houses to pass the bill if it could be brought up for consideration. With some amendments the bill was reported favorably by the Foreign Relations Committee in the House and the Agricultural Committee in the Senate, but further than this no action was taken.

As our readers are well aware there was an unprecedented amount of delay and confusion in reference to many administrative bills during the closing days of Congress. An immense amount of good work, however, was accomplished, and at the special session of our national lawmakers called for April 16, 1917, the bill will again be introduced and its consideration will be pressed.

HOSTS OF WATER-FOWL IN LOUISIANA

Mr. E. A. McIlhenny, who keeps well-informed as to conditions about the bird-refuges in southern Louisiana, and to whose skill and generosity we owe the admirable photograph accompanying this article, reports, in a letter quoted below, that water-fowl are extraordinarily plentiful there.

"The past summer was most favorable for the growth of duck-feed, and the mar-

Scaups and Redheads occupied the lakes of this tract and the State Game Preserve. On Marsh Island vast numbers of Gadwalls, Baldpates, and Mallards were to be found, and great numbers of Blue Geese, with a few Snow Geese, occupied Marsh Island throughout the entire autumn. These Geese later moved to the Grand Chenier tract in the vicinity of Constances Bayou, where they congre-



DUCKS IN WINTER ON A LOUISIANA REFUGE

shes, ponds, and lakes were filled with all kinds of the most attractive feed for Ducks and Geese; and in the early fall the Ducks and Geese came in enormous quantities. The fall and early winter . . . were very dry, and the birds congregated in amazing numbers wherever there was water. The principal centers for bird-population were: for Pintails, Mallards, and Teal, on both sides of the Grand Chenier Ridge; for Mallards and Teals on the Ward-McIlhenny tract, between the camp and the Gulf; and great quantities of Canvasbacks,

gated in enormous numbers, and where there are still a great number. At present there are more Ducks on the Louisiana State Preserve than I have ever known there. On the lake near my camp I estimate there are 40,000 Canvasbacks; and on the Louisiana State Game Preserve and Lake Fearman, and on the North and South lakes, vast numbers of Canvasbacks, Scaups, Baldpates and Gadwalls. Teal are everywhere, and the present winter has shown a greater wild-fowl population on the Louisiana refuges than ever before."

THE AMSTON EXPERIMENT STATION

Readers of BIRD-LORE, and of the Annual Report of the National Association, are aware that Mr. Charles M. Ams has acquired an immense tract of virtually wild land in eastern Connecticut, and has fitted up in one of the lakes within it a model breeding-place for wild ducks to be cultivated in captivity. Mr. Ams has now

portance. The planting of food-bearing vegetation will be carried out in a way to teach the public what and how to plant.

For beginning the propagation of wild water-fowl an ideal small pond and adjoining swamp- and grass-land have been enclosed with a seven-foot, vermin-proof fence. A water-fowl breeding-house out in



SCENE IN THE GLASS BREEDING-HOUSE AT AMSTON

When this photograph was taken, ten species of Ducks were swimming about in comfort, although the temperature outside was 15° below zero

declared the entire tract a wild-life sanctuary, and has posted it accordingly. Further, he has signed an agreement giving the National Association of Audubon Societies full use of the property as a sanctuary and experiment station under the oversight of Herbert K. Job. Mr. Ams pays all expenses for work mutually agreed upon, and provides the necessary labor, including the services of an expert game-keeper.

At the Experiment Station nesting and feeding devices will be placed with a view of collecting various data of practical im-

the pond, with glass front, comprising a swimming-pool and float, has been constructed, and the breeding stock already obtained has wintered finely. It consists of most of the more important and valuable species of North American wild Ducks, and some other water-birds. Unusual facilities will be afforded for scientific and practical studies, including the growing of aquatic food-plants.

Stocks of the Bob-white and of the Scaled Partridge or 'Blue Quail' have been secured, and coöperative experimental

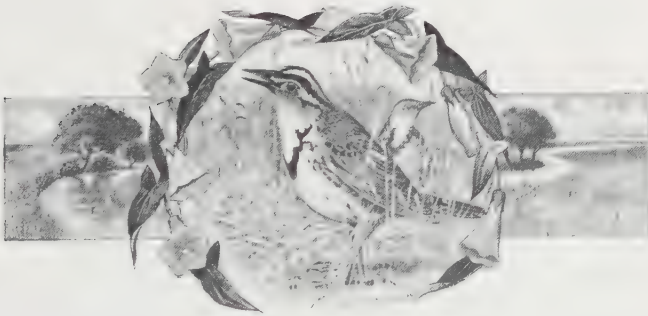
work elsewhere with other species is under way, which later will be centered here. A large commercial game-farm is to be established near by, and may be visited for purposes of further instruction.

Need has long been felt of some place reasonably accessible where all these practical methods with wild birds and game could be observed and studied. To accommodate visitors and students, Mr. Ams is opening a small hotel and a public garage. Also, he has placed at the disposal of the Association an attractive house, in which will be placed an exhibit of bird-specimens for study, pictures of birds, Audubon literature, and apparatus for feeding and attracting birds. Mr. Pearson, Mr. Job, and others will be in attendance during the coming summer season, and will be glad to meet and interest those who come. There is good fishing, boating, and

bathing on the large lake, which is less than a mile from the railroad station, while the hotel and exhibit are close by. Good camp-sites on the lake may be available by special permission for parties who really come to learn and who present satisfactory references.

During the season of 1917 the work will be tentative and experimental, but there would seem to be an excellent opportunity here for the building up of a summer school of ornithology and game-keeping, and of a bird-lovers' camp and cottage colony. The development of this unique project will be watched with interest. Those who desire to engage accommodation in advance may write to H. Rohde, Superintendent, Amston, Connecticut.

Casual visitors by train or other conveyance may come at any time.



NEW MEMBERS AND CONTRIBUTORS

Enrolled from January 1 to March 1, 1917.

Life Members:

Barrows, Ira
 Chahoon, Mrs. George, Jr.
 Colgate, Henry A.
 Curtis, Mrs. Anna Shaw
 Ellis, Ralph
 Ford, Mrs. Bruce
 Hunter, Anna F.
 Osborn, Prof. Henry Fairfield
 Wister, John C.

New Members:

Abbott, Mrs. Frank Ely
 Amerman, Rev. J. L.
 Audubon Association of the Pacific
 Badger, Mrs. Horace D.
 Bailey, Mrs. William J.
 Barnstein, Lydia
 Bartlett, Clay
 Beaham, Gordon T.
 Beal, Mrs. Howard W.
 Beardsley, Mrs. O. D.
 Benedict, Mrs. C. E.
 Biddle, William C.
 Birdsall, J. L.
 Bishopric, Mrs. Allison
 Blackinton, Mrs. Fred L.
 Blanchard, Mrs. Emma J.
 Boal, Mrs. Ayres
 Boardman, Miss Catherine W.
 Bowles, Miss Elizabeth
 Bowstead, H. G.
 Boyd, Mrs. Henry W.
 Bradlee, F. J.
 Breckenridge, Miss Annie L.
 Brewster, Mrs. Benj. E.
 Brown, F. H.
 Brown, Sumner C.
 Bryant, M. L.
 Calkins, Mrs. Alice H.
 Canby, Mrs. Edward T.
 Caner, Mrs. Charles
 Canfield, George F.
 Carey, Miss Mary deP.
 Casement, Mrs. Frances M.
 Chase, Sidney
 Chiles, R. A.
 Clark, Miss Anna M.
 Clark, Edward H.
 Clark, Mrs. Edward H.
 Clark, Mrs. George M.
 Cleaver, Miss Elizabeth K.
 Cobb, Mrs. James Shepard
 Cocheu, Dr. Lindsley F.
 Coles, Miss Julia W.
 Colorado Museum of Natural History
 Cordes, William
 Corliss, Miss Maria L.
 Craven, Frank
 Cushman, Miss Alice

New Members, continued:

Cushman, Mrs. Henry I.
 Cutler, Mrs. Thomas D.
 Cuyler, Miss E. deGraff
 Danforth, Mrs. G. H.
 Daugherty, Theodore
 Decker, Mrs. F. A.
 DeForest, Charles S.
 Denny, Mrs. Thomas, Sr.
 Detroit Zoological Society
 Dewey, Mrs. George T.
 Dickinson, F. R.
 Drake, Isabel A.
 Dumont, Mrs. John B.
 Dwight, John E.
 Eddy, Schuyler B.
 Emery, Miss Alexandra
 Eshbaugh, Theodora Kane
 Falk, Oscar
 Farnum, Mrs. Henry W.
 Fentress, Mrs. Calvin
 Fitzsimons, Mrs. Louis E.
 Foot, Ellsworth, I.
 Fowler, Mrs. Marie K.
 Fry, H. M.
 Galpin, H. L.
 Gardner, P. H.
 Gaylorn, Mrs. F. W.
 Geisser, Miss Marie Therese
 Gifford, Paul C.
 Gilholm, Elgin
 Gilpin, Mrs. John C.
 Goddard, Mrs. F. W.
 Goodwin, Miss Margaret S.
 Gorton, Miss Margaret S.
 Goshen Audubon Society
 Gramer, W. A.
 Green, Fred W.
 Groesbeck, Telford
 Hall, Lewis F.
 Hambleton, Mrs. Jos. W.
 Hamilton, Mrs. H. R.
 Hamlin, Mrs. Charles S.
 Hammar, S. A. S.
 Harrowes, Miss Caroline W.
 Haskell, Mrs. L. A. (In Memoriam)
 Hastings, Morris
 Hatton, Julian B.
 Havemyer, Mrs. Horace
 Hawley, George B.
 Heacock, Miss Esther
 Herrick, Francis Hobart
 Hibbard, Mrs. Lydia B.
 Hinman, Miss Elizabeth
 Holmes, C. L.
 Holt, Sidney S.
 Horsford, Miss Cornelia
 Housman, Mrs. A. A.
 Huber, Miss Gertrude
 Hufnagel, Bernhard M.

New Members, continued:

Kellogg, William S.
 Kellogg, Mrs. William S.
 King, Mrs. Ralph
 Kirkham, William B.
 Lambert, Miss Marie E.
 Lamprey, Miss Mary E.
 Lane, Henry B.
 Lapham, Anna W.
 Lathrop, Mrs. Bryan
 Lawton, Mrs. Richard M.
 Leonhard, Albert F.
 Leonhard, J. Henry
 Livingston, Mrs. Herman
 Loesch, Frank J.
 Lummis, J. H.
 Lyon, Mrs. Thomas R.
 McGinnis, Rev. William F.
 McKee, Mrs. W. L.
 McNeil, Charles F.
 McNider, Mrs. Charles H.
 MacKay, Mrs. M. S.
 Marsh, Mrs. E. T. T.
 Martin, Miss Sarah E.
 Mayer, Mrs. R. deL.
 Mitchell, Annie O.
 Moehlenpah, Marion
 Mora, Mrs. Edward
 Moses, Bert M.
 Mudd, H. S.
 Murray, F. F.
 Newberry, Mrs. Wolcott E.
 Newburyport Bird Club
 Northrop, Mrs. John I.
 Norton, Mrs. Carrie Morse
 Norton, Charles W.
 Otis, Mrs. Joseph E.
 Paine, Rev. George L.
 Pairce, Miss Harriet W.
 Patterson, Samuel W.
 Pennie, John C.
 Peter, Julius C.
 Pettee, Miss Josephine G.
 Platt, Norman S.
 Pounsford, Harry
 Puxton, Mrs. M. W.
 Racine Bird Club
 Reese, John S., 4th.
 Reichenberger, Mrs. Victor M.
 Rhinebeck Bird Club
 Richards, Mrs. Ella F.
 Riley, Mrs. Nelson J.
 Rittenhouse, Emma S.
 Robb, Mrs. John T.
 Rosenbaum, Edward F.
 Rosenheim, Mrs. A. F.
 Rosenwald, Mrs. Julius
 Ryerson, Mrs. E. L.
 Sanborn, Mrs. William R.
 Savannah Audubon Society
 Schafer, J. J.
 Scott, Mrs. Robert T.
 Shainwald, Riette H.
 Shepard, W. Hubbard

New Members, continued:

Shores, Dr. H. T.
 Shriver, Mrs. Harry T.
 Simmons, John S.
 Simonds, Ray
 Skinner, William
 Smith, Mrs. Byron L.
 Smith, William H.
 South Haven Bird Club
 Spear, Mrs. Walter E.
 Sprague, H. L.
 Stevenson, Miss A.
 Stimson, Louis A.
 Stone, Mrs. Arthur L.
 Swales, Bradshaw H.
 Swift, Mrs. Louis F.
 Taylor, Frederick M.
 Taylor, John
 Thompson, Mrs. D. B.
 Thompson, Miss Laura C.
 Tibbals, Mrs. S. J.
 Turner, Miss Harriet I.
 Uihlein, Edward G.
 Van Gieson, Mrs. H. B.
 Vigo County Bird Club
 Volger, B. G.
 von Stade, F. S.
 Vreeland, Mrs. Lucy E.
 Wadsworth, W. M.
 Waters, Mrs. R. J.
 Whitney, Alfred Rutgers
 Whitney, Mrs. Harwood Otis
 Willets, S. P. Taber
 Wilmarth, Mrs. H. M.
 Women's Club of Sunnyside, Wash-
 ington
 Woodford, Miss Margaret B.
 Wulsin, Mrs. Lucien, Jr.
 Wyman, Mrs. Clara L.
 Ziegler, Mrs. Henry

New Contributors:

Bacbroach, L. F.
 Brooks, Mrs. W. P.
 Carwin, Mrs. R. N.
 Chace, Fenner A.
 Clark, Mrs. N.
 Cook, Mrs. A. E.
 Cramer, Mrs. Joseph
 Danforth, Mrs. William B.
 Davis, Mrs. Annie R.
 Davis, J. Stuart
 Dixon, C. P.
 Eastman, Miss Anna S. R.
 Eastman, Sarah C.
 Ehrich, Robert
 Ferris, Eversley Stuart
 Floyd, Mrs. Edith M.
 Foster, Miss M. C.
 Graham, Charles E.
 Jenks, Miss Lydie D.
 Jenks, Miss Meta E.
 Johnson, Mrs. C. H.
 Jones, Arthur E.

New Contributors, continued:

Kingsley, Mrs. William L.
 Malone, Mrs. L. H.
 Manning, Mrs. L. L.
 Nettleton, Harry E.
 Noble, George H.
 Phillips, A. W.
 Reed, Miss Clara
 Smith, Mrs. F. H.
 Smith, Mrs. Mary H.
 Stirling, W. R.
 Stone, Miss Abbie M.
 Swift, Mrs. Sarah J.
 Tucker, Mrs. D. G.
 White, John B.
 Wilder, Charles P.

Contributors to the Egret Fund

Previously acknowledged	\$562 41
Adams, William C.	1 00
Allen, Miss Gertrude	20 00
Allen, Mary P.	20 00
Ames, Mrs. J. B.	5 00
Barclay, Miss Emily	5 00
Barri, Mrs. John A.	5 00
Beebe, Mrs. William H. H.	3 00
Bignell, Mrs. Effie	2 00
Blackwelder, Eliot	1 00
Bliss, Miss Lucy B.	4 00
Bonham, Miss Elizabeth S.	5 00
Bonham, Mrs. Horace	25 00
Boynton, Mrs. C. H.	1 00
Brent, Mrs. Duncan Kenner	2 00
Brewer, Edward M.	5 00
Brooks, Mrs. Shepherd	10 00
Brown, D. J.	2 00
Burgess, E. Phillips	3 00
Burt, Miss Edith	2 00
Burt, Miss M. Theodora	5 00
Button, Conyers	25 00
Carse, Miss Harriet	2 00
Christian, Susan	5 00
Clarke, Mrs. E. A. S.	5 00
Clerk, Mrs. A. G.	1 00
Cleveland, Mrs. Clement	1 00
Colfelt, Mrs. R. McM.	5 00
Collins, Miss Gertrude	5 00
Cox, John L.	5 00
Cristy, Mrs. H. W.	1 00
Crosby, Maunsell S.	10 00
Curie, Charles	5 00
Cutter, Ralph Ladd	5 00
De Forest, Mrs. Robert W.	5 00
Delafield, Mrs. John Ross	2 00
Dwight, Mrs. M. E.	4 00
Eaton, Mary S.	5 00
Ellis, William D.	10 00
Emery, Miss Georgiana	1 00
Emmons, Mrs. R. W., 2nd	10 00
Evans, William B.	4 00
Fergusson, Alex C.	2 00
Field, E. B.	2 00
Franklin, Mrs. M. L.	10 00
Friedman, Mrs. Max	2 00

Fries, Miss Emilie	\$1 00
Frothingham, John W.	35 00
Fuguet, Stephen	5 00
Bird-Lover	5 00
Godeffroy, Mrs. E. H.	10 00
Goodwin, George R.	5 00
Greene, Miss Caroline S.	1 00
Griffin, Mrs. Solomon B.	3 00
Haskell, Miss Helen P.	2 00
Hathaway, Harry S.	2 00
Hodgman, Miss Edith M.	3 00
Hopkins, Miss Augusta D.	3 00
Horr, Miss Elizabeth	5 00
Hoyt, Miss G. L.	5 00
Jackson, P. T., Jr.	25 00
Jacobus, John S.	5 00
Jewett, William Kennon	5 00
Jordan, A. H. B.	20 00
Kennedy, Mrs. John S.	10 00
Kerr, Mrs. T. B.	1 00
Lane, James Warren, Jr.	5 00
Lehman, Meyer H.	2 50
Levey, W. Charlesworth (In Memoriam)	5 00
Lewis, Mrs. Herman E.	5 00
Mann, James R.	1 00
Marrs, Mrs. Kingsmill	5 00
Marsh, Spencer S.	1 00
Mason, G. A.	5 00
Mason, H. L., Jr.	5 00
Maurer, Oscar	3 00
Mellns, J. T.	2 00
Merritt, Mrs. James H.	5 00
Meyer, Miss Heloise	400 00
Mills, Dr. Herbert R.	10 00
Montell, Mr. and Mrs. F. M.	2 50
Moore, Alfred	5 00
Mott, Miss Marian	5 00
Murray, J. Irwin, Jr.	1 00
Netherlands Society for Protection of Birds	5 00
Nice, Mrs. Margaret M.	3 00
Oliver, Dr. Henry K.	10 00
Oppenheim, Myron H.	1 00
Osborne, Arthur A.	1 00
Parker, Edward L.	25 00
Parker, Mrs. W. R.	3 00
Patton, Mrs. Margaret S.	10 00
Peck, Dr. Elizabeth L.	1 00
Penfold, Edmund	10 00
Phelps, Frances von R.	10 00
Pott, Miss Emma	1 00
Pusey, Mrs. Howard	3 00
Randolph, Evan	5 00
Rhoads, S. N.	1 00
Richardson, Mrs. M. G.	5 00
Righter, William S.	5 00
Robbins, Miss N. P. H.	3 00
Robbins, Mr. and Mrs. R. E.	30 00
Sampson, Miss Lucy S.	1 50
Saunders, Charles G.	1 00
Schweppe, Mrs. H. M.	1 00
Shoemaker, Henry W.	10 00
Simpkins, Miss M. W.	10 00
Simpson, Miss Jean W.	5 00

Small, Miss A. M.	\$2 00	Vaillant, Mrs. G. H.	\$3 00
Spackman, Miss Emily S.	2 00	Varice, Miss Renée	2 00
Spalter, Mrs. F. B.	1 00	Von Zedlitz, Mrs. Anna	2 00
Spong, Mrs. J. J. R.	50 00	Walker, Miss Mary A.	2 00
Stanton, Mrs. T. G.	2 00	Willcox, Miss M. A.	10 00
Stevens, F. E.	2 00	Williams, George F.	5 00
Struthers, Miss Mary S.	10 00	Williams, Mrs. Sydney M.	2 00
Tate, J. M., Jr.	1 00	Winkley, Rev. Henry W.	2 00
Thorndike, Mrs. Augustus	1 00	Woodward, Dr. S. B.	5 00
Timmerman, Miss Edith E.	1 50	Wright, Miss Mary A.	2 00
Topliif, Miss Anna E.	5 00	Zimmerman, Dr. M. W.	5 00
Tower, Mrs. Kate D.	1 00		
Troesch, A. F.	10 00	Total	\$1,728 41

NOTES FROM THE FIELD

Progressive Florida!

Two years ago the Florida Legislature abolished the state game-warden system, the advocates of this action claiming loudly that the birds could be better protected by the use of officers appointed locally, providing the various county officials should deem it necessary to have wardens. This was done despite the energetic protests from this office and the active opposition of the State Audubon Society. The results are just as were to be expected.

The following quotation from a letter recently received portrays a typical example of the conditions existing in that benighted state:

"In the show-window of one of the leading hardware merchants of Bradentown, among other lawless displays, stands a white Egret in full plumage. One citizen, who is an enthusiastic bird-protectionist, tells me there has been much comment on this mute bird standing there in defiance of all state laws, but the transgressors go about their affairs smiling, regardless of comment. Also a party of five or six men slaughtered thirty deer—among them several does.

"What can be done? The whole thing is a crying shame, and here where so much has been said and done. I do so want to see these 'leading citizens' made an example of in the courts."

Bradentown, to which our correspondent refers, is the county-seat of Monroe County, Florida. It is an attractive, progressive town on the south bank of the

Manatee River near the mouth of Tampa Bay. It is a nice place to visit if one is willing to shut his eyes and ears to what may readily be seen and heard in reference to an utter disregard for bird- and game-protective laws.

Death of Miss Leona Robbins

The Colorado Audubon Society and the cause of bird-protection in the Pike's-Peak region, suffered an irremediable loss when Miss Leona Robbins, Secretary of the Society, and a devout bird-lover, died on January 7, 1917. Miss Robbins was not only enthusiastic and effective in her labors for the benefit of the birds, but was an artist-teacher of high repute, and greatly esteemed by those who knew her in either capacity. For several years she coöperated with Dr. W. W. Arnold and Edward S. Warren in their work for better bird laws, and she also maintained a bird-hospital at her Ivywild home.

Walt F. McMahon

The office staff of the National Association was increased on February 1, 1917, by the accession of Mr. Walt F. McMahon as an active assistant. Mr. McMahon came to us from Boston, where for a year previous he had devoted his entire time to the duties of Secretary of the Massachusetts Fish and Game Commission, an experience which gave him valuable training in legislative and conservative matters generally. Before that he had spent two

years with Mr. E. H. Forbush in the research work and drawing of illustrations required by the annual reports and frequent bulletins issued from Mr. Forbush's office; and this gave him a wide view of the field of bird-protection. Mr. McMahon has become an expert in the planning and management of bird-protective exhibitions, bird-box contests, and the like. Audubon Societies and schools are holding these useful exhibitions more and more; and this Association, which has always encouraged them, is now glad to be able to render increased assistance.



A STAND BUILT OF FRUIT-BOXES

The Bob-White in Ohio

For the past five years there has been an absolute close season on Quail shooting in Ohio. The time set by law was about to expire, and the question arose: Shall Quails be shot or shall they be protected for another term of years? This Association favored continuing the close season for at least two and perhaps five years, and our Ohio agent, Dr. Eugene Swope, began a campaign looking to this end, when lo! the farmers of the state took up the fight, and demanded that the

bird be protected for all time, and the Ohio Legislature has passed such a law!

An Inexpensive Food-Stand

The accompanying photograph shows an interesting feeding-station erected by Mrs. William H. Dunshee, of Cedar Rapids, Iowa. It is made of three fruit-cases held together by corner posts that raise the entire structure about 18 inches above the ground. Each shelf is provided with a tray of galvanized screening, bent up at the edges to prevent the food blowing off. In case the snow blows in, warm water may be poured through the trays. The broad, projecting roof is a good feature, and the system of perches provided for the little boarders is very attractive. Unless backed against a tree, as shown in this picture, it would be well to have the station partly enclosed at the back to protect the birds and yet have an exit. Cords or wires from the corners would prevent its blowing over. The picture shows a Cardinal on the ground, two Chickadees on the perches and Juncos.

Sustained Effort

The importance of "Keeping at it" in the education of the public on the subject of bird-protection is as great as in any other effort at public improvement. It is a pleasure to learn, therefore, that the Civic Club of Chambersburg, Pennsylvania, is to organize during the coming season another fine exhibition of bird-study, feeding-devices, etc., like that which was so successful last year.

Value of the Index

A lady in Minneapolis writes us this pleasant note after examining the new 'Index' to the first fifteen volumes of BIRD-LORE:

"I am finding out what a storehouse of treasures BIRD-LORE really is; and tho I have only the last volume myself, I find that our Library has all of them, and I want this key to the treasures."



LEAST BITTERN

Photographed by Verdi Burtch, Branchport, N. Y., May 7, 1916